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FALLING ON DEAF EARS:
SOCIAL WORKERS' ATTITUDES ABOUT DEAFNESS, HEARING LOSS, AND DEAF
CULTURAL COMPETENCE

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Master of Social Work

In

The School of Social Work

by
Esperanza Jacqueline Garibay
B.A., Saint Edward's University, 2016
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DEDICATION

This thesis is dedicated to Ruben & Julissa, although my hearing faded, your faith in me never did.

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ABSTRACT

D/deaf and hard of hearing people have lower health literacy and higher rates of misdiagnosis of serious illnesses than their hearing counterparts (Sheier, 2009). This is, in part, a result of the inaccessible and culturally incompetent care provided to d/Deaf and hard of hearing individuals (Kuenburg, Fellingner & Fellingner, 2016; Hoang, LaHousse, Nakaji & Sadler, 2010; Sheier, 2009). Inaccessible and culturally incompetent care may be byproducts of human service providers' attitudes towards d/Deaf and hard of hearing people (Ulloa, 2014; Cooper, Mason & Rose, 2005), and providers' level of competence with properly caring for d/Deaf and hard of hearing clients (Hoang LaHousse, Nakaji & Sadler, 2010).

This exploratory study aims to understand how social workers' attitudes towards deafness relate to their competence, as well as to their experience, with working with d/Deaf and hard of hearing clients. Additionally, I explore how certain demographic and professional characteristics are related to social workers' attitudes, competence, and experience. I found that social workers' attitudes and competence were significantly correlated ($0.388, p=0.001$). Gender also had a relationship to attitudes toward the D/deaf, 75.2% of female social workers had positive attitude scores, while 24.8% of male social workers had positive attitudes. Experience with d/Deaf and hard of hearing clients and utilizing interpreters were significantly related to social workers' self-reported competence scores, where social workers who utilized interpreters for their d/Deaf clients had higher competence scores falling within the ranges of moderate to expert. Finally, I found that receiving education about d/Deaf and hard of hearing issues was significantly related to social workers' self-reported competence where 82.9% of social workers who had learned about d/Deaf issues had competence scores that ranged from moderate to expert scores.

Implications for social work practice are discussed, namely d/Deaf education programs, as well as policies that could improve access to care by expanding access to interpreters and hearing devices. Future considerations for research could include qualitative studies with disabled social workers, or d/Deaf people to better understand d/Deaf cultural competence from a sociocultural viewpoint.

CHAPTER 1. INTRODUCTION, ACCESS TO CARE FOR THE DEAF & HARD OF HEARING

According to the National Association of the Deaf (2018), the most “life-threatening form of discrimination” against deaf and hard of hearing individuals is the detrimentally inadequate care provided by health and mental health care practitioners. Current research suggests that human services, such as proper medical, mental, substance use counseling, and other social services, for the deaf and hard of hearing are gravely inaccessible (Tate & Adams, 2006; National Association of the Deaf, 2018; Pollard et. al, 2014; Kuenberg, Fellingner & Fellingner, 2016; Lesch, Burcher, Wharton, Chapple & Chapple, 2018). According to a 2016 literature review, only about 50% of healthcare providers utilize communication services for the deaf and hard of hearing, and an overwhelming amount of service providers are *unaware* of their responsibilities to accommodate their deaf clients (Kuenberg, Fellingner & Fellingner, 2016).

This barrier to accessible care can be attributed partially to caregivers’ attitudes about deafness, and lack of experience with methods of best practice to care for and accommodate deaf and hard of hearing populations (Kuenberg, Fellingner & Fellingner, 2016). Certain attitudes, coupled with a lack of cultural competency, creates a critical problem with the way that services are provided to the deaf and hard of hearing (Sadler, Huang, Padden, Elion, Galy, Gunsauls, 2009). This gap in services creates a communication deficit between the deaf and hard of hearing and their service providers.

Understanding Deafness

Deafness is an umbrella term for the partial or total inability to hear out of one or both ears and can affect any age group starting from birth to late adulthood (World Health Organization, 2018). According to the Technological Education Center for Deaf & Hard of Hearing Students (2018),

“deaf” refers to an individual with extremely little to no functional hearing while “hard of hearing” refers to an individual with mild to moderate/severe hearing loss. The National Health Interview Survey (2002) reported that in the United States, around 1,000,000 Americans are deaf and 8,000,000 are hard of hearing. With respect to the state of Louisiana, it is estimated that out of the 4.68 million residents about 20,000 individuals are deaf or hard of hearing (Louisiana Department of Public Health, 2018).

Within those populations of deaf and hard of hearing there are individuals who identify and align themselves with Deaf culture as denoted by the use of a capital “D,” explained further in following sections. Out of both groups, about half of those populations are over the age of 65 (National Health interview Survey, 2002). In fact, aging is the most prevalent predictor for hearing loss in adults aged 20 to 69, with the highest amount of hearing loss occurring in ages 60 to 69 (Hoffman, Dobie, Losonczy, Themann & Flamm, 2017).

According to the American Psychological Association (APA, 2011), the culturally Deaf and aging hard of hearing are considered underserved communities. Underserved groups refer to populations that experience “inadequate access to medical and behavioral care” (American Psychological Association, 2011). The APA (2011) claims that communication barriers are one of the largest culprits that contribute to this gap in care. Within the deaf and hard of hearing spectrum, the culturally Deaf and the aging hard of hearing both face *heightened* barriers to communication.

Barriers to communication are similar yet distinct for the two populations. The primary language of Deaf Americans is American Sign Language (ASL), a language much different from spoken English. On the other hand, the aging hard of hearing tend to develop auditory processing issues and language deficits as a result of their hearing loss (Kemper & Lacal, 2004). Their

respective deficits with spoken language, coupled with limited access to competent care, place these two groups at risk for low health literacy, the level at which people have the ability to access, process, and comprehend health information and health services (National Association of the Deaf, 2018), and inaccurate evaluations that could lead to misdiagnoses and inappropriate interventions (National Association for the Deaf, 2018; Steinberg, Sullivan, & Loew, 1998)..

Low health literacy is a consequence of limited access to competent care, explained further in the following chapter, and puts both populations at high risk for misdiagnosis or under diagnosis of serious illnesses (American Psychological Association, 2011). The culturally Deaf are more likely to have sexually transmitted diseases, certain cancers, and behavioral health disorders that go undiagnosed and untreated (American Psychological Association, 2011), while the aging hard of hearing are often misdiagnosed with dementia and face heightened risk of mortality rates than their peers with little to no hearing loss (O’Leary, 2009).

Social Work & Deaf and Hard of Hearing People

Inaccessible services provided to deaf and hard of hearing clients across health and social services contributes to the underservice of d/Deaf and hard of hearing communities (Myers & Thyer, 1997). Findings from one survey of d/Deaf and hard of hearing residents of Washington D.C. showed that d/Deaf populations had several negative feelings about social service and community service agencies (Polakoff, 1980). Respondents reported frustration with workers inability to properly help with their needs, largely due to their incapability to communicate, and that they were made to “feel stupid”, a stigmatizing attitude that hindered them from seeking social services (Polokoff, 1980).

The Social Work Code of Ethics requires that professional social workers “vow to pursue social change, particularly with and on behalf of vulnerable and oppressed individuals and

groups of people” to “ensure access to needed information, services, and resources; equality of opportunity; and meaningful participation in decision making for all people” (National Association of Social Workers, 2018). Evidence that deaf and hard of hearing people are not seeking social services suggests that social workers and other human services professionals may not be providing culturally competent care (Sheridan, White & Mounty, 2010; Barnett, Mckee, Smith & Pearson, 2011). Studies show that best practices for providing culturally competent and accessible care is when providers share the same experiences as their clients, this includes having a shared race, ethnicity, or ability which can encompass deafness and hearing loss (Mayer & Zane, 2013; Sheridan, White & Mounty, 2010).

The aforementioned best practice would suggest that d/Deaf social workers would be more apt to serve d/Deaf and hard of hearing clients. However, social work is a majority hearing profession; only about 250 deaf and hard of hearing individuals completed MSW programs in 2010 (Sheridan, White & Mounty, 2010). This fact suggests that while there are a handful of deaf or hard of hearing social work professionals it is far more likely that a d/Deaf or hard of hearing client will end up with a hearing provider. A recent article published by social workers at Gallaudet University (the only liberal arts University for the Deaf in the United States) stressed that the responsibility of accessible care for the deaf should not exclusively fall on the shoulders of d/Deaf and hard of hearing social workers (Sheridan, White & Mounty, 2010). Instead, a combination of further education in cultural competency and advocacy for the deaf and hard of hearing should be implemented to future and current social workers so as to prepare them to serve these populations.

Social workers provide a significant amount of health and well-being services to a vast amount of diverse populations across the lifespan. According to the Council on Social Work

Education (CSWE, 2014), social workers are one of the largest groups of mental health and human service providers. Since the scope of health and human services have proven to be a difficult area of service for d/Deaf and hard of hearing populations, it is surprising that little research has been done to explore how social workers provide services to the Deaf and hard of hearing. The Deaf and the aging adult populations' documented levels of low health literacy and the high rate of undiagnosed or misdiagnosed illness in both populations can be considered an issue of public health that can be addressed and advocated for by social workers (Barnett, Mckee, Smith & Pearson, 2011; Speros, 2009).

The National Association of Social Workers (NASW) code of ethics (2018) states that social workers have “legal and ethical” obligations to serve diverse client populations through the use of “nondiscrimination standards and culturally competent practice” (National Association of Social Workers, 2009). However, the NASW (2009) reports that “many social workers are unaware of their responsibilities to accommodate deaf and hard of hearing clients”. Due to the overwhelming majority of social workers in school, mental health, and medical settings being hearing (Sheridan, White & Mouny, 2010), it is more likely that deaf and hard of hearing residents in Louisiana may encounter incompetent care from a hearing provider. In fact, this past year the State of Louisiana (2018) published a report about the current state of affairs at the Louisiana School for the Deaf. The report stated that many of the hearing staff members do not have the skills necessary to accommodate the needs of students, and as a result of these deficits there is low morale amongst the d/Deaf students (State of Louisiana, 2018).

Past research on the provision of services to the deaf and hard of hearing by medical professionals such as doctors, nurses, and medical students has shown that caregivers' attitudes, lack of knowledge about Deaf culture, and lack of knowledge about

methods of best practice are common among these populations (Hoang, LaHousse, Nakaji &, Sadler 2010; Cawthon et. al, 2013). Findings from these studies, however limited research has been done with social workers. What we do know are the results of one master's thesis conducted by Ulloa (2014) at Western Oregon University. This study showed that social workers in Texas had very positive attitudes towards deafness, yet 85% of respondents had minimal to no experience utilizing accommodations for the deaf, namely sign language interpreters.

This thesis aims to expand the on research measuring social workers' attitudes towards deafness to understand how they affect social workers' competency to serve the d/Deaf and hard of hearing. I will explore these questions by analyzing practicing social workers' attitudes and knowledge towards deafness and their current competency level to provide accessible care to deaf and hard of hearing populations, with respect to the culturally Deaf and the aging hard of hearing.

First, I will discuss the literature exploring human service workers attitudes towards deafness, the models of understanding d/Deafness and hearing loss, and the barriers to care for the d/Deaf and aging hard of hearing. Then, in Chapter 3, I discuss my research questions, and methods for data collection and analysis. Chapter 4 will discuss the results of my study as they pertain to my research question, followed by chapter 5, a discussion section, and chapter 6 which discusses conclusions and implications for social work, practice, policy, and future research.

CHAPTER 2. REVIEW OF THE LITERATURE

Access to care can be defined as acceptable services that are relevant, effective, affordable and accessible with limited barriers that affect utilization (Gulliford, Munoz, Morgan, Hughs, Gibson & Hudson, 2002). These barriers include providers' attitudes towards d/Deaf people, stigma associated with deafness and hearing loss, and a lack of provider knowledge with respect to methods of best practice. In the following sections I first discuss attitudes towards deafness as defined in terms of medical and sociocultural models. I then examine how these perspectives on deafness affect the Deaf and the aging hard of hearing with respect to access to care, focusing specifically on health literacy and diagnoses for each group.

Attitudes on Deafness and Hearing Loss

How deafness is defined is integral to understanding how Deaf individuals are viewed and treated by society (Berke, 2010). Deafness can be defined according to either medical or sociocultural models, as a disease or as a unique culture. How these models inform practitioners' attitudes about deafness and hearing loss may affect a caregiver's ability to provide competent, accessible care which here refers to culturally competent, accessible, and comprehensive care for the deaf and hard of hearing. I first discuss deafness in terms of a medical perspective, then turn to deafness as a culture.

Medical Model: Deafness as a Disability & Disease

In medical terms, deafness is considered a physical disability stemming from either a genetic component present at birth or acquired later in life, or environmental circumstances that progressively cause loss in hearing (Biggers & Nordqvist, 2018). The Department of Human Genetics at the University of Chicago (2003) reports that half of all instances of profound deafness

are genetic. Deafness can also be sustained by environmental aspects such as disease or exposure to loud noises for an extended period of time (Biggers & Nordqvist, 2016).

The medical model considers deafness as a pathological disease to be corrected, where the ability to hear is considered healthy, and the norm. In 1980 the World Health Organization (WHO) conceptualized a standard for working with people with disabilities. This framework defines “disability” in terms of impairment, handicap and disability. All three terms cite limitations, loss, or abnormalities within physical, physiological, or anatomical origins (World Health Organization, 1980). According to the above, medical deafness is considered abnormal function, and therefore a disability, impairment or handicap. Since the medical model defines deafness as a condition that requires treatment to restore normalcy, in this case the ability to hear, the term “hearing impaired” is frequently used by the medical model to describe the d/Deaf and hard of hearing. The term “hearing impaired” is only appropriate in the medical community and not as a generalized term to refer to the d/Deaf and hard of hearing (Tate & Adams, 2006). Since the goal of the medical framework for deafness is to treat the said impairment, people who subscribe to this model of deafness often encourage the use of corrective surgery or hearing prosthetics such as hearing aids or cochlear implants (Brusky, 1995).

More than 90 percent of deaf and hard of hearing people are born to hearing parents National Institute on Deafness and Other Communication Disorders (2004), and about 88 percent of those parents subscribe to the medical definition of deafness (Kluwin & Gustaud, 1991). When hearing parents (with no prior experience or familiarity with deafness) have a deaf child they are often struck with feelings of “grief and loss” about their child’s deafness; these reactions are informed by the clinical perspectives of medical professionals that view deafness as a “tragic” clinical diagnosis (Young, 1999).

For those who are born deaf the medical model stresses that deafness should be addressed and corrected as early as possible so as to prevent delays in verbal language acquisition and assist in the bonding and attachment process with their parents (Mroz, 2018). The Food and Drug Administration (2012) estimates that 38,000 children have been implanted with cochlear hearing devices, and that 15 percent of children under 18 months born with some level of hearing loss are fitted with hearing aids. If the child is ineligible for hearing aids or cochlear implants the medical model suggests the implementation of intensive speech pathology interventions to assist in spoken language (American Speech-Language Hearing Association, 1999).

Hearing parents cite the desire to have their child develop normal spoken language as the main reason for their decision to use cochlear implants (Mauldin, 2011; Archbold et al. 2001; Bain et al. 2004; Christiansen & Leigh, 2002; National Association of the Deaf, 2000, Okubo et al., 2008). With regards to children who are born deaf the medical model also encourages the practice of “mainstreaming” which refers to placing deaf children into public schools with no accommodations for their deafness, so as to encourage the child to socialize orally with hearing children (Ramsey, 1997).

The medical model for late life hearing loss and deafness in the aging adult population follows a similar path; corrective hearing devices occasionally paired with speech pathology, although speech pathology may not be as beneficial for the aging adult as they are often deafened post lingually and are already fluent in a spoken language (National Institute on Aging, 2017). Since aging adults are typically deafened post-lingually, or only have moderate to severe hearing loss, the medical model can be beneficial to these adults who are usually negatively affected by their newly acquired hearing loss (National institute on Aging, 2017). According to a 2005 study on the aging and later-life hearing loss, the most devastating consequence of age-related hearing

loss is the difficulty of understanding speech (Gomez & Madey, 2001). Difficulty understanding speech can affect the quality of relationships, leading to isolation and other risks. Consequently, aging adults with hearing loss are at a higher risk for decline in health as a result of the maladaptive behaviors that aging adults utilize as a result of the social stigmas associated with aging (Gomez & Madey, 2001). The medical model's main goal is to treat abnormality, the aging adult is typically fitted with hearing aids or other communication devices to help alleviate negative symptoms such as pretending to understand conversation or withdrawing (Gomez & Madey, 2001).

Human services providers are likely to subscribe to the medical model for deafness, especially doctors, psychiatrists, nurse practitioners and some counsellors due to their formal training consisting mostly of medical model for deafness and hearing loss (English, 2002). The medical model of deafness can be a positive framework for addressing hearing loss, especially in the aging population, but there are some shortcomings and criticisms due to its primary focus being the limitations of the individual, rather than their strengths (Kanter, 2014). Overall, the medical model is the most commonplace attitude among human services providers (Hochman, 2000). This framework views deafness and hearing loss from a medical standpoint that strives to “increase the quality of life” for the deaf and hard of hearing via medical intervention and rehabilitation services (Canadian Hearing Society, 2015).

Sociocultural Model: Deafness as culture

In sociocultural terms “Deafness” denoted by the use of a capital “D” refers to groups of people “with varying hearing acuity whose primary mode of communication is a visual, signed language (such as American Sign Language) and have a shared heritage and culture” (Colorado Department of Human Services, 2010). The term culture refers to the behaviors and norms and

traditions that exist in the context of a certain group of people (Macionis & Gerber, 2011). Deaf people have a shared set of beliefs, values, and behavioral patterns. One major facet of Deaf culture is the typical rejection of the medical model of deafness, because Deaf culture does not consider deafness to be a disability, but as a difference to be celebrated. Some members of Deaf culture are *so* opposed to the medical framework for deafness that they even reject the use of assistive devices such as hearing aid and cochlear implants (Mindness, 2006).

The most essential element of Deaf culture is the use of a signed language, predominantly American Sign Language (ASL) in the United States (Lane, Hoffmeister & Bahan, 1996). Similar to spoken language among various cultural groups, there are even regional and ethnic variations to ASL, comparable to the variations in spoken English across ethnic groups in America; there are regional and ethnic “accents” with respect to hand shape and hand placement (Harrington, 2012). For example, variations between white and black signers; white signers tend to sign “I’m sorry” with a closed fist moving in a circle against their chest, while black signers simply tap their closed fist against their chest which more loosely translates to “my bad” as opposed to “I’m sorry”. Deaf families even tend to create colloquial signs that are unique to their own families, and those signs are passed along to future generations (Lucas & Bayley, 2011). Even when Deaf adults have hearing children, they are often raised bilingually in Deaf culture and those signs are kept alive cross culturally.

In the case of mixed Deaf and hearing families, it is typically more common for deaf children to be born into hearing families. Approximately 90 percent of d/Deaf and hard of hearing people have hearing parents (Hoffman, Dobie, Losonczy, Themann & Flamme, 2016). While a majority of hearing parents choose to utilize the medical model to address their child’s deafness, a small percentage of hearing parents choose to accept their child’s deafness and

include their deaf or hard of hearing children, and in turn themselves, in Deaf culture (Young, 1999). According to a 1999 study, hearing parents with deaf children that viewed deafness from a sociocultural model experienced less anxiety about their child's condition; their decision to align with Deaf culture being influenced by the attitudes of the family physician (Young, 1999). The study exposed the hearing parents to Deaf adults and signed language in order to help foster a perspective of deafness that didn't lead them to view their child and other Deaf persons as "other". While those deaf children with hearing parents may identify as Deaf due to their exposure and commitment to the community, they have an advantage over Deaf persons born into culturally Deaf families; that advantage is access to English (Grushkin, 2016). Deaf children with hearing parents are far more likely to be bilingual (ASL with Spoken English) than their generationally and culturally Deaf counterparts (Lederberg, Schick, & Spencer, 2013).

The estimated 10 percent of deaf and hard of hearing individuals born to deaf parents has been referred to by researchers as the "mythical 10 percent" (Mitchell & Karchmer, 2004). This "mythical 10 percent"—which is now estimated to be 5 percent rather than 10 (Lederberg, Schick, & Spencer, 2013)—are born into Deaf culture, meaning that the majority of their family members were born deaf and identify with cultural Deafness (Mitchell & Karchmer, 2004). They, more often than not, are signing only meaning that they do not speak an oral language, or only have a small degree of oral ability (Mindness, 2006). Regardless of their ability to speak, the culturally Deaf can have an English literacy level comparable to hearing persons when viewed from a sociocultural perspective (Strong & Prinz, 1997; Swanwick, 2005). There are discrepancies in this research, however, as many Deaf individuals report that they have a difficult time understanding written English (Grushkin, 2016; Mindness, 2006; Steinberg, Sullivan, & Loew, 1998). This is largely due to their lack of access to native English—their inability to hear

coupled with the occasional rejection of communication devices by Deaf culture could prevent them from learning the patterns and syntax of spoken English (Grushkin, 2016).

Although the culturally Deaf can face the challenge of a language barrier with their hearing counterparts, Deaf culture is a rich culture that abides by its own set of rules. Namely, a positive attitude towards deafness, using a signed language and the desire to pass on Deaf culture and language to their children regardless of their hearing status; wherein hearing children born to Deaf parents are still considered culturally Deaf due to their knowledge of the culture and using a signed language. Hearing people born to Deaf parents are referred to by the Deaf community as CODA a term that in ASL is a finger-spelled acronym that translates to “child of Deaf adult(s)” (Hoffmeister, 2008). In Deaf culture, deafness is understood from a strengths-based perspective that empowers the Deaf within their own circles (Scheier, 2009). Unlike the medical model, Deaf culture views deafness not as a disability but as a difference that is to be celebrated as a positive identity (Padden & Humphries, 1988). While the sociocultural model employs the framework of empowerment to the d/Deaf community, the medical model is more commonly known, accepted, and in turn pushed to the forefront of education for human service providers.

In order for adequate accessible care to be provided to d/Deaf and hard of hearing clients social workers must engage in culturally competent care to foster higher levels of health literacy and decrease the risk of misdiagnosis for these populations. The exclusion of the sociocultural model for deafness can create a gap in how human service providers are trained to care for the deaf and hard of hearing that can ultimately lead to inadequate access to competent care – especially for deaf individuals who align themselves with Deaf culture and the aging hard of hearing.

Access to Culturally Competent Care

Access to competent care refers to the provision of culturally competent, effective health communication that integrates mandated accommodations and methods of best practice that are used to benefit the deaf and hard of hearing (American Psychiatric Association, 2011; Americans with Disabilities act, 1990). Competent care provides comprehensive health information with the goal of increased communication via methods of best practice as a means to prevent misdiagnosis and increase health literacy. “Methods of best practice” refers to implementing certain techniques and usage of skill in order to achieve the desired outcome in treatment (Mullen, Bellamy & Bledsoe, 2013).

With regards to serving the deaf and hard of hearing, knowledge of skills and policies that are specifically designed to successfully accommodate the deaf should be utilized. The Americans with Disabilities Act (1990) requires that the deaf and hard of hearing be accommodated by both public and private entities. Title 2 rights to communication assistance via ASL interpreter or live captioning services must be clearly posted for clients to see in social work settings (ADA, 1990). As previously stated, it is reported that less than 50% of caregivers provide these accommodations, let alone display signage that informs their clients of their rights. In addition to the workers responsibility to provide these accommodations, they must also be knowledgeable in interacting with clients and their interpreters.

Methods of best practice also encompass culturally competent care that extends to d/Deaf and hard of hearing communities. The following sections detail the components and outcomes of truly accessible care for both the Deaf and aging hard of hearing. These include care that fosters health literacy for the Deaf and hard of hearing, an understanding of cultural and behavioral norms within deaf communities that help avoid misdiagnosis, and knowledge of policies that aim

to assist deaf and hard of hearing clients within the context of a clinical or social work setting. I first provide an overview of both health literacy and misdiagnosis, and then I will discuss the three main barriers to accessible and competent care as they apply to the culturally Deaf and aging hard of hearing.

Health Literacy

Health literacy, the ability to understand and interpret healthcare information, is significantly lower among the Deaf and aging hard of hearing than it is among hearing populations (American Psychological Association, 2014). When individuals have low health literacy they are more likely to utilize emergency room services for medical care as a substitute for primary care services, this in turn leads to less screening for illnesses such as cancer, lowered immunization rates, poor ability to interpret health messages, poor ability to properly take prescribed medication, poorer health overall, and higher mortality rates for the aging hard of hearing (Eisenberg, 2012) With respect to Deaf populations, poor health literacy tends to manifest in unplanned pregnancies, behavioral issues not related to hearing loss, increased rates of HIV and other sexually transmitted disease, and high rates of abuse (American Psychological Association, 2011).

Client Misdiagnosis

Inequitable access to competent care causes a deficit in the way that d/Deaf and hard of hearing populations are assessed (American Psychological Association, 2011). Improper assessment techniques, such as having the deaf clients read through a written English assessment form, can cause tension or anxiety in the client as they may not be comfortable with clinical English terms. In fact, within the Deaf community, psychosis, developmental disorders, mental retardation, and behavioral disorders are over-diagnosed in those seeking behavioral or mental

health services during the initial assessments (Black & Glickman, 2006). Without proper accommodations the d/Deaf and aging hard of hearing are often mistaken by professionals as unresponsive, or poor writing or oral communication are pathologized as low intelligence, disordered thinking, psychosis or mental retardation (Pollard, 1994). It is also common that Deaf signers that attempt to communicate with modified ASL to help convey their thoughts and symptoms are mistaken as exhibiting bizarre or violent behavior and are consequently hospitalized for a behavioral disturbance and the initial reason for seeing services is ignored (Swanson, 2007). The following sections outline and expand on the barriers to competent and accessible care for d/Deaf and aging hard of hearing populations.

Barriers to Access to Competent Care

Barriers to competent care for d/Deaf and hard of hearing populations can be identified across service type. However, the current literature about provision of services for the d/Deaf and hard of hearing focuses largely on medical providers such as doctors, nurses, counsellors, and medical students, in settings like hospitals, health and mental health care clinics (Kuenburg, Fellingner & Fellingner, 2016; Hoang, LaHousse, Nakaji & Sadler, 2010; Steinberg, Sullivan, & Loew, 1998). Similarly, literature discussing services for the aging d/Deaf and hard of hearing also focus on the aforementioned professions with the added dimension of personal caregivers and nursing home settings. The main barriers to care are as follows: one, providers' attitudes towards deafness and cultural competence; two, communication barriers; and three, providers' knowledge of accommodation policy. In the following sections I will discuss each of these barriers to care in terms of their contribution to the lowered health literacy and high under- and mis-diagnosis rates among the Deaf and the aging deaf and hard of hearing, in turn.

Barrier 1: Attitudes Towards Deafness

With respect to the culturally Deaf, one barrier to care are the caregivers' lack of knowledge of Deafness as a culture and community, where this lack of knowledge can be attributed in part to medical attitudes about deafness and hearing loss (Kuenburg, Fellingner & Fellingner, 2016; Hoang, LaHousse, Nakaji & Sadler, 2010; Steinberg, Sullivan, & Loew, 1998). As previously discussed, when providers hold *mainly* medical attitudes about deafness they are less likely to utilize a socio-cultural model of care and may engage in behaviors that deaf and hard of hearing clients view as discriminatory. Additionally, provider attitudes towards deafness can result in a lack of knowledge in methods of best practice, especially for the culturally Deaf (Hoang, LaHousse, & Nakaji, 2010).

Lack of knowledge about Deaf culture is often a result of the medical training given to healthcare providers in their school and training. Deafness, to the majority hearing medical and healthcare community (Sheier, 2009), is largely taught in terms of the medical model when educating caregivers; the medical model teaches that the inability to hear hinders one's ability to respond to speech and environmental cues, communicate, and participate in aspects of mainstream culture (Butler, Skelton & Valentine, 200; Higgins, 1990; Kronick, 1990). When caregivers are unaware of Deaf culture and methods of best practice, they can engage in culturally insensitive behaviors without even knowing. For example, a Deaf patient may perceive a hearing doctor as rude if they do not maintain eye contact throughout speaking with the Deaf person, or if an interpreter is present and the doctor looks at the interpreter rather than the patient while speaking (Gallaudet Research Institute, 1996; Scheier, 2009; Meador, 2005). Interactions such as these lead to Deaf consumers disdain and mistrust for providers, many deaf patients report experiencing feelings of fear and frustration in healthcare settings (Kuenburg, Fellingner &

Fellinger, 2016; Iezzoni, O'Day, Killeen & Harker, 2004; Scheier, 2009). Thus, making Deaf consumers less likely to seek medical attention from primary care physicians or other health care providers (Scheier, 2009).

A 2010 study measured the cultural competency of physicians and medical students that either had no formal training in working with the Deaf or those that had completed a Deaf Community Training Program (DCT) that aimed to aid physicians with the skills and tools necessary to serve the Deaf (Hoang, LaHousse, Nakaji, and Sadler, 2010). The authors (2010) report that “many of the healthcare barriers [to the Deaf] stem from...providers’ lack of community specific cultural and linguistic competency...and the medical community’s view of deafness solely as a pathophysiological disease that needs to be ‘cured’” (p.1).

In their study UCSD medical faculty and medical students some of whom participated in the DCT program were surveyed on their perceptions about the Deaf, knowledge of Deaf culture, and knowledge of accommodations for the Deaf (Hoang, LaHousse, Nakaji & Sadler 2010). Results indicated that the faculty and students that had completed the DCT model displayed higher overall knowledge of Deaf Culture and accommodations for d/Deaf and hard of hearing patients. The respondents who had not completed the DCT intervention were considerably less knowledgeable about all survey subjects, despite being either medical professionals or future professionals in training. Some of the respondents selected the “I don’t know” option when answering questions about certain aspects of Deaf culture, despite a majority of students reporting that they were “aware of Deaf culture” (Hoang, LaHousse, Nakaji & Sadler 2010). Even non-DCT faculty respondents that had reported past experience working with Deaf clients still scored significantly lower on knowledge than faculty that reported no past experience and had completed the intervention (Hoang, LaHousse, Nakaji & Sadler 2010). These results suggest

that unless medical professionals are given an intensive model of training specific to serving the Deaf, they are not well-versed in the subject of Deaf culture. As suggested by the authors (2010) in their introduction, the problem lies within the medical model of deafness that is outlined for use by medical professionals; viewing deafness as a disease is something that the Deaf Culture strongly opposes (Mindness, 2006). This lack of knowledge of Deafness as a culture can be considered one of the larger culprits in the way hearing professionals interact with Deaf customers leading to a gap in culturally competent service for the Deaf (Hoang, LaHousse, Nakaji & Sadler, 2010).

The second study conducted in 2002 addresses the importance of cross-cultural communication with the Deaf and tackles both barriers of culture and language that were not addressed in above study. Despite ASL being the third largest primary language used by Americans, physicians' other professional healthcare workers' medical education model does not adequately prepare them to work with Deaf signers (Barnett, 2002). The study first looks at physicians' limited knowledge of ASL as a language separate from English. ASL is a complex visual language with unique syntax, and conversation structures that adheres to cultural norms within the Deaf community. These norms include things like conversation structure; conversations among Deaf signers, even between friends, start out with important, urgent, or pertinent information, things like "small talk" or "catching up" only happen after the most important subjects are discussed (Barnett, 2002). In Deaf culture communication is a valuable thing because it almost exclusively occurs face to face, so when clinicians start appointments with things like reviews from previous sessions, check ins, or other rapport building type conversation the Deaf client is likely to interpret that the clinician values the rapport-building topics are more urgent than the reason for the visit (Barnett, 2002). While his knowledge of

Deaf cultural norms can be utilized to provider's advantage, the medical model includes little to no education on Deafness as a culture, instead looking at deafness only as a medical issue to be treated or cured.

Implications for the Aging Hard of Hearing

Older adults also face barriers to communication and lack of knowledge by service providers. Like the culturally Deaf, the aging adults who experience hearing loss are at risk for lowered health rate literacy, and under or misdiagnosis of disease (Witte & Kuzel, 2000). In fact, the aging hard of hearing are perhaps even more susceptible to low health literacy and misdiagnosis than their Deaf counterparts, due, in one part, to a lack of community and culture and in another, to the lack of enforcement of federally mandated policies that would protect and accommodate the aging hard of hearing (Barnett, 2000). The Americans with Disabilities Act (ADA, 1990) mandates that qualified interpreters are to be made available to Deaf patients. However, older adults that lose hearing as a result of aging experience hearing loss, or who are deafened post lingually, main form of communication is a spoken language. Thus, rendering ASL interpreters useless to them in clinical or medical settings. However, the ADA (1990) also requires that assistive devices such as hearing amplifiers be made available to the hard of hearing. Unlike their culturally Deaf counterparts, the aged are likely to benefit from the medical model of deafness and hearing loss, as presbycusis, or age-related hearing loss, is a progressive affliction that can cause changes or disturbances to their quality of life (Corso, 2010).

Employing aspects of the sociocultural model of deafness to treating and working with the aging hard of hearing can also be beneficial to the aged. As the sociocultural model for deafness aims to normalize hearing loss it can help to combat one of the most devastating things that often accompanies the aging process: stigma. According to a 2009 study on the stigma of

hearing loss in the aging population, people are living longer (Wallhagen, 2009). With the number of aging adults growing, the critical need to address hearing loss grows with them. Treating hearing loss in the aging supports and facilitates their ability to communicate, maintain relationships and socialize creating a protective factor against isolation. However only about 20 percent of aging adults who could benefit from corrective hearing devices utilize them (Wallhagen, 2009; National Association of Deafness and other Communication Disorders, 2009). Findings in this study investigate the “dimensions of stigma as experienced and expressed by older adults” (Wallhagen, 2009, p.1). Aging adults with untreated hearing loss are also at high risk for misdiagnosis of severe disease such as dementia (Deaf and Hard of Hearing Services, 2009). The medical model for deafness stresses deafness and hearing loss as disability; a construct that is often viewed as a *negative* symptom of aging, thus the aged feel stigma about what is considered a common occurrence in the aging process (Wallhagen, 2009).

Results indicated that the aging adults cited “perceived stigma” had impacted 1) initial acceptance of their hearing loss 2) whether or not to seek treatment and 3) when and where the hearing aid(s) are worn (Wallhagen, 2009). Three shared experiences directly correlated with the perceived stigma of the participants: alterations in self-perception, ageism, and vanity (Wallhagen, 2009). Data obtained in this study corroborated past literature that focused on stigma as a barrier to care. However, this study contributed new bases “for the social construction of the stigma itself” concluding that many aging adults’ perceived stigma concerning hearing loss was largely informed by the effects of ageism and ableism (Wallhagen, 2009).

Barrier 2: Communication Barriers

The second, and most prevalent, barrier to care also stems from the lack of knowledge of deafness as a culture, especially that Deaf culture revolves around a signed language. Deaf people communicate with signed visual language, most prevalently American Sign Language (ASL). Many providers are either unaware that ASL is its own unique language, *not* just “gestured English”, or they are unaware of their responsibility to make language accommodations for their Deaf clients through use of communication devices or interpreters (Sheier, 2009; Glickman, 2003). According to a 1995 study that surveyed physicians at a university medical center, writing back and forth was the most frequently reported mode of communication between doctor and patient, a method that has proven to be quite ineffective, especially for the culturally Deaf (Ebert & Heckerling, 1995; Steinberg, Sullivan, & Loew, 1998). The study went on to find that while 63% of physicians reported that they knew signing would be the best method of communication for Deaf signers, only 22% of that population actually utilized sign language interpreters (Ebert & Heckerling, 1995). The culturally Deaf utilize American Sign Language as their first and often only language. When hearing providers assume that their d/Deaf patients must know English or written English, this is not a culturally competent assumption or practice (Mindness, 2006).

Another cultural-linguistic gap between hearing providers and Deaf clients are the cultural differences in non-verbal gestures (Barnett, 2002). Common gestures that would indicate the termination of an appointment or session (standing, closing a paper chart or notebook, walking towards the door) to a hearing person, frequently do not evoke signals of termination for the Deaf (Barnett, 2002). In Deaf circles conversations tend to continue long after people have gotten up and walked out of the door, this is again due to the constant face to face model of

conversing for the Deaf (Barnett, 2002). This knowledge of Deaf cultural norms can be utilized to provider's advantage. However, the medical model includes little to no education on Deafness as a culture, and with this framework in place deafness is looked at as a medical issue to be treated or cured, the client's deafness is then pushed to the forefront and other issues are not addressed (Glickman & Gulati, 2003). This framework often ignores an important tradition in the Deaf community which celebrates deafness. When this tradition is disregarded by practitioners culturally sensitive care is compromised (Glickman & Gulati, 2003).

While American Sign Language Interpreters are sometimes utilized in human service settings, the issue of client comfort and confidentiality arises. With a majority of human services providers being hearing, English-speaking and frequently unsure of interpreting services, adequate care for the Deaf becomes limited (Sheridan, White, & Mouny, 2010). Consequences of inadequate care for the Culturally Deaf are decreased utilization of health and human services, a lack of health literacy, misdiagnosis of mental retardation and various mental illness, and increased institutional marginalization (Barnett, 1999).

Barnett (2002) also explored the issue of communication barriers finding that translation from English to ASL and vice versa without the use of a *qualified* interpreter can lead to detrimental miscommunications that contribute to lowered health literacy. Since providers are often not aware of their responsibilities to provide qualified interpreters, many rely on speech reading or writing as a method of communicating with their Deaf client (Barnett, 2002). This is ineffective and even dangerous, however as a written English phrase can be similar to a phrase in ASL, but due to the syntax of ASL may be interpreted by the Deaf client as having the opposite meaning of the English phrase (Barnett, 2002; Meador, 2005). For example, if a clinician is sharing the results of an HIV test to a Deaf patient by writing to them "your HIV test came back

positive” the Deaf client will read it as a good thing—this is because the sign “positive” in ASL either denotes good news or “addition” in mathematical terms (Barnett; 2002). While this example may be a little extreme in terms of the consequences for HIV being ignored, it is very much a miscommunication that perfectly illustrates how dire this gap in language can be when Deaf individuals are seeking out various forms of healthcare.

Another study conducted in 1998 by a team of physicians investigated Deaf people’s knowledge, attitudes, and beliefs about mental illness and [mental health care] providers to identify barriers to accessible mental health care (Steinberg, Sullivan, & Loew, 1998 p.1). Fifty-four Deaf adults were questioned about the following: recognition of mental health terms in English, sources of knowledge for those terms, beliefs about the causes of mental health issues, therapy preferences, and their strategies for seeking out mental health services (Steinberg, Sullivan, & Loew, 1998). All of the above are important facets to mental health literacy, which previous literature had established in quite low in deaf populations. The largest culprit identified by participants was indeed the language barrier. Participants were asked if they recognized mental health terms in written English. While many were able to successfully discuss concepts such as “addiction” “psychosis” and “depression” accurately using American Sign Language—they did not recognize the terms in English. (Steinberg, Sullivan, & Loew, 1998 p. 983). This finding suggests that the common use of “writing back and forth” as a means of communication between Deaf and hearing people may not be as reliable as assumed, especially in a mental health setting where English clinical terms are utilized on intake forms (Kelley & McGregor, 2003).

This barrier in language was also evident in participants’ reluctance to visit mental health settings due to a fear of being misunderstood by the hearing staff. A “recurring image” in the

study was that of a Deaf client being incapable of properly communicating with staff and being “erroneously committed” (Steinberg, Sullivan, & Loew, 1998, p.983). Results of the study showed that the majority of participants reported that the largest obstacles to seeking out care were language barriers and “Deaf clients [being] powerless and at the mercy of prejudiced hearing authorities” (Steinberg, Sullivan, & Loew, 1998, p.983). Consequently, the overwhelming majority of participants reported their therapeutic preferences to be All Deaf/hard of hearing group therapy or utilizing the services of a Deaf provider so as to avoid any possibility of miscommunication and the consequences associated with it (Steinberg, Sullivan, & Loew, 1998 p.983).

Implications for the Aging Hard of Hearing

In 1999, the National Council on the Aging conducted a study that explored the consequences of untreated hearing loss in older adults. A total of 2,304 aging adults who reported hearing loss that was detected later than the actual onset of the hearing loss were surveyed alongside 2,090 of their family members (National Council on the Aging, 1999). They found that older adults with untreated hearing loss suffer from negative effects such as: sadness and depression, worry and anxiety, paranoia, lessened social activities, and emotional turmoil and insecurity (National Council on the Aging, 1999). An overwhelming number of respondents reported that they did not seek care for their hearing loss because their “hearing isn’t bad enough” (National Council on the Aging, 1999). A total of 69 percent of all respondents, 64 percent of respondents with severe hearing loss, and 73 percent of respondents with mild hearing loss all reported the “hearing isn’t bad enough” response (National Council on the Aging, 1999).

This result is likely due to the progressive nature of hearing loss in aging adults that is, because it is not a sudden profound loss, the impairment goes unnoticed, and thus undiagnosed

(National Institute on Deafness and other Communication Disorders, 2018). When older adults with hearing loss go unnoticed and untreated, they (and older adults that utilize hearing aids) are also at risk for misdiagnosis of dementia (O’Leary, 2009). This misdiagnosis often in the medical setting and happens in two situations, 1) the older adult has undiagnosed hearing loss 2) the older adult lost or forgot to put on their corrective hearing devices. The aging adult's inability to follow along with speech and respond appropriately is mistaken for cognitive decline associated with dementia (Deaf and Hard of Hearing Services, 2009).

In 2000 a practice update was published with the goal of educating social workers to better serve the elderly hard of hearing or as stated in the article, the deaf people social workers forget (Desselle & Proctor, 2000). The article explains that many social workers are not well versed in methods of best practice to serve the aging hard of hearing and details a brief case study of a hospital social worker and her decision to direct all information to her hard of hearing client’s daughter. The social worker in this case study makes a detrimental mistake in her decision to speak with the daughter instead of her client. By directing her attention solely to the daughter, she alienates her hard of hearing client “leaving the client sitting and wondering what is being said about her condition” (Desselle & Proctor, 2000 p.277).

The social workers decision to speak to her client's daughter is neither sensitive nor culturally competent care; when there is a deliberate break in communication from provider to client the clients trust and rapport with the provider are significantly lowered (Desselle & Proctor, 2000). The article likens the instance of a provider addressing a caregiver instead of a client or patient to treating the client like a “pet at a veterinarian” (Combs, 1992 p.98). This alienation of hard of hearing older adults contributes to the underutilization of services due to lack of trust in providers. When health services are not utilized by the aged, they are as

previously discussed at a heightened risk for underdiagnoses of illness and lowered health literacy (National Council on Aging, 2009).

Barrier 3: Accessible Care

When effective communication takes place between provider and client, the aforementioned issues of health literacy and access to care can be avoided. However, according to a 2017 study, practitioners are not utilizing interpreting services for their Deaf clients (Olson & Swabey, 2017). For Deaf sign language users, the importance of a qualified interpreter is integral for providing accessible care. Qualified and credentialed sign language interpreters are key in bridging the severe language gap between hearing providers and their Deaf clients. According to a study of ASL interpreters' competency, respondents overwhelmingly reported a greater need for proper training, credentialing and vetting of sign language interpreters in order to address the dearth in health equity within the Deaf community (Olsin & Swabey, 2017).

A 2016 literature review was conducted on Deaf patients access to healthcare, it was inferred that only about 50% of healthcare providers book ASL interpreters for their Deaf clients (Kuenberg, Fellingner & Fellingner, 2016). Providers that do not utilize interpreting services are unaware of or do not utilize other form of communication technologies such as relay devices and live captioning services (Kuenberg, Fellingner & Fellingner, 2016). In addition to the 2016 literature review, a study was conducted in 1995 that gathered information from physician about the types of communication accommodations they used when serving Deaf clients (Ebert & Heckerling, 1995). Only 22% of participants reported using certified ASL interpreters, while the overwhelming majority reported that they used writing back and forth as their main method to communicate with their Deaf clients (Ebert & Heckerling, 1995; Steinberg, Sullivan, & Loew, 1998). The ADA mandates that agencies must provide interpreting services for their d/Deaf

clients, whether that is by use of a pre-booked interpreter, utilizing an annually updated list of around the clock interpreters, or providing live telecommunication devices such as relay or TTY. However many agencies are unaware of these policies, and in turn do not provide them to those clients, compromising the accessibility of those services.

Implications for Aging Hard of Hearing

Older adults also face barriers to communication and lack of knowledge by service providers. Like the culturally Deaf, the aging adults who experience hearing loss are at risk for lowered health rate literacy, and under or misdiagnosis of disease (Witte & Kuzel, 2000). In fact, the aging hard of hearing are even more susceptible to low health literacy and misdiagnosis than their Deaf counterparts due, in part to a lack of community and culture and due to the lack of federally mandated policies that would protect and accommodate the aging hard of hearing (Barnett, 2000). The Americans with Disabilities Act (1990) mandates that qualified interpreters are to be made available to Deaf patients, the issue here is that older adults that lose hearing as a result of aging experience hearing loss, or are deafened post lingually, so their main form of communication is a spoken language. Thus, ASL interpreters, or relay services may be useless to them in clinical or medical settings.

Inaccessibility to communication devices like hearing aids is a leading issue for the aging hard of hearing, (Arnold, Hyer & Chisolm, 2017) “recent epidemiological studies have revealed significant socioeconomic disparities in use of hearing health care among older US adults with hearing loss” thus contributing to the low uptake rate for hearing aid use in older adults. In 2016 the pension rights center reported that half of all older adults in the United States made less than 23,000 dollars a year across all income sources. The hearing tracker foundation reported that the average cost of one digital hearing aid across all manufacturers is \$2,560 (2018 dollars), and the

average cost of a pair of digital hearing aids is \$4,672 (Bailey, 2018). As of August 2017, Medicaid coverage for hearing aids is not federally mandated and is regulated by a state-by-state basis. Louisiana requires that health plans must cover some or all of the costs of hearing aids and cochlear implants—but only for children (American Speech Language Hearing Association, 2018).

Even if communication devices such as hearing aids are provided to the aged, there is a staggering number of older adults that after they are fitted with hearing aids, do not use them (McCormack, 2013). While this is in part due to stigma, a study of older adults fitted with hearing aids revealed that the size and component associated with hearing aids proved to be too difficult to maintain on their own (McCormack 2013). It was reported that some reasons for non use were “difficulty putting in,” “HA is broken and repairs are too expensive,” and “batteries too difficult to replace” (McCormack, 2013). All of the above are matters of accessibility with respect to either financial means or the decline in dexterity associated with the aging process. Like the Deaf, the aged are an at-risk population for increased marginalization, when progressive hearing loss is layered onto aging their chances of lowered health literacy, misdiagnosis, and mortality are dramatically increased (Witte & Kuzel, 2000).

Summary

The attitudes of human service workers and definitions of deafness can affect the way that services are delivered to deaf and hard of hearing populations (Berke, 2010). Barriers to access to care contribute to health care disparities within deaf communities, especially the Deaf and the aging hard of hearing. The two groups can be negatively affected by incompetent care which can contribute to the issue of low health literacy, and misdiagnosis (American Psychological Association 2011). Additionally, the Deaf and aging hard of hearing are typically

excluded from health research and surveillance, so limited contributions to this research can result in the inadequate care provided to d/Deaf and hard of hearing populations.

In effort to better understand the relationship between social workers' knowledge of Deaf culture, aging and hearing loss, and competency to serve deaf and hard of hearing populations and their access to care I surveyed social workers in Louisiana in order to understand how social workers' attitudes towards deafness relate to their competence with working with d/Deaf and hard of hearing clients. Additionally my survey explored how social workers experience with d/Deaf and hard of hearing clients relate to their attitudes and competence, and how certain social worker demographics, professional characteristics and education are related to attitudes, competence, and experience.

CHAPTER 3. METHODS

d/Deaf and hard of hearing people face significant barriers to accessing health and behavioral health settings. Services are either culturally incompetent, or inaccessible, which contributes to the problem of low health literacy and incorrect diagnoses within deaf communities (Sheier, 2009; Glickman, 2003; Ebert & Heckerling, 1995; Steinberg, Sullivan, & Loew, 1998; Wallhagen, 2009; Witte & Kuzel, 2000; Barnett, 2002; Hoang, LaHousse, Nakaji & Sadler, 2010; Kuenburg, Fellingner & Fellingner, 2016; Iezzoni, O'Day, Killeen & Harker, 2004; Sheier, 2009; Gomez & Madey, 2001). Shortcomings in service within health and behavioral settings may be due to caregivers' adherence to the medical model of deafness (Sheridan, White & Mounty, 2010; National Association of Social Workers, 2018; Polokoff, 1980; Myers & Thyer, 1997), coupled with a lack of knowledge of the methods of best practice that are meant to benefit deaf and hard of hearing populations.

Few studies have looked at social workers' attitudes towards deaf people and their experience serving deaf and hard of hearing populations, save for one graduate thesis that measured the attitudes to deafness of social workers in the state of Texas. The thesis concluded that regardless of how frequently social workers serve the deaf, they had mostly positive attitudes towards deaf people (Ulloa, 2014). In an effort to deepen and expand to her research, this exploratory, cross-sectional investigation of Louisiana social workers' perspectives on and experience working with the deaf and hard of hearing explored social workers' attitudes toward deafness and hearing loss to assess whether social workers understand deafness as a medical disorder, or as a culture. Additionally, I included a layer of research that addresses competence to serve Deaf and hard of hearing clients. Finally, I explored the possible relationships between attitudes, competency, and experience working with the Deaf and hard of hearing vary by

licensure level, workplace, occupation, gender, race, and hearing identity. I hypothesized the following: first, social workers whose attitudes towards d/Deaf and hard of hearing fall within the medical range will have lower competence scores than social workers whose attitudes fall within the sociocultural range. Second, social workers who have past professional experience with Deaf and hard of hearing clients and utilized interpreters for them would have higher attitude and competence scores. Third, social workers who hold minority statuses will have higher competence scores and attitude scores. Social workers with higher level licensure would be more competent than social workers who have a lower level license or are unlicensed. Finally, that social workers who had received education about d/Deaf and hard of hearing issues in their social work education would have higher competence scores than those who did not.

Study Design

This cross-sectional study measured social workers' attitudes towards deafness, their current level of competency working with deaf and hard of hearing clients in effort to assess the relationship between attitudes, competency and deaf and hard of hearing clients' access to services (as measured by social workers self-reported experience working with deaf and hard of hearing clients). I surveyed social workers practicing in Louisiana about their attitudes towards deafness, their self-reported level of competency and their experience working with deaf populations, as well as demographic and professional characteristics, using a confidential online survey. The study was reviewed and approved by the Louisiana State University Institutional Review Board.

Sampling & Recruitment Procedures

Respondents were purposive sample of social workers licensed in the state of Louisiana at the LMSW, LCSW, and other levels of licensure who are subscribed to the NASW-LA email

list or are members of the NASW-LA Facebook page in December 2018. Purposive convenience sampling methods were used in an attempt to capture a niche population sample to obtain basic data that assist in the detection of relationships among differing variables. (Rubin & Babbie, 2010). The NASW-LA LISTSERV population consists of 1,350 social workers who currently work in the state of Louisiana. There are approximately 8,363 social workers in the state of Louisiana (State of Louisiana, 2016), about 16% of all social workers in Louisiana.

An email invitation to participate in the anonymous was sent to all LISTSERV recipients with the assistance of Ayn Stehr, Executive Director of the Louisiana Chapter of the National Association of Social Workers. In addition to the email invitation, an advertisement identical to the invitation email was posted on the official NASW-LA Facebook page. The Qualtrics survey link directed respondents to the Louisiana State University consent form, which informed respondents of study procedures, benefits, risks, right to refuse, and contact information for the principal investigators and the Louisiana State University Institutional Review Board (See Appendix B for the text of the consent form). Potential respondents could either select “I consent to participate” and be directed to the survey, or “I do not consent” and exit the survey. Data was collected over a three-week period, and 168 social workers consented to the survey. However only 115 social workers completed the surveys. The remaining 53 social workers either exited the survey without taking it, or their sessions timed out. Valid survey responses totaled to N=115, with no missing data across the survey questions, all results and tables are representative of the collected sample size.

Survey Procedures

Survey responses were collected using Qualtrics, an online survey engine used to collect and analyze survey data. The survey was piloted with five MSW students in the advanced year

and advanced standing cohort at the Louisiana State University Master of Social Work Program to test the clarity of instructions, clarity and relevance of survey questions, and ensure that the survey questions are able to effectively fulfill the purpose of the study. This was submitted to the Louisiana State University institutional review board and approved for use in the data collection.

Survey Instrument & Variables

A 45-item questionnaire was constructed to measure social worker's attitudes, competence, experience and demographic and professional characteristics that could be associated with social workers' competency with deaf and hard of hearing populations. The questionnaire combined two scales that had been previously developed to measure human services workers attitudes towards d/Deaf and hard of hearing people, and social worker competencies. Attitudes towards Deafness was measured with the scale of the same name developed by Cooper, Rose and Mason (2004). Competency with Deafness was measured with a scale adapted from the Geriatric Social Work Competency II Scale (Council on Social Work Education, 2018) to assess for competencies related to deafness. Experience was assessed by two questions regarding their past or current professional experience with D/deaf and hard of hearing people and interpreters. Demographic questions regarding race, gender, and hearing identity as well as questions regarding professional characteristics such as licensure, occupation, place of work and social work education were also included.

Attitudes to Deafness

Attitudes to deafness refers to the feelings and perceptions that professionals hold about deaf and hard of hearing people in human services (Cooper, Mason & Rose, 2004). Cooper, Mason and Rose (2004) developed a scale to measure those questions, the 22-item Attitudes to Deafness scale. The Attitudes to deafness scale measured social workers attitudes towards deaf

people. Specifically, which model of deafness they subscribe to; medical or sociocultural. Scale items are scored on a Likert scale coded on a scale of 1-6 from strongly disagree to strongly agree where the midpoint is non-neutral. Respondents' attitudes to each question are scored on a scale from 1-6 and an average of the 22 items is taken to compute an overall attitude score for each individual. Attitude scores closest to 6 are considered to be positive sociocultural attitudes, while scores closer to 1 are considered more negative, medical attitudes. Cooper, Mason & rose (2004) validated The Attitudes to Deafness scale with human service professionals who serve deaf and hard of hearing populations finding a Cronbach's alpha of 0.71. I found the attitudes to deafness scale to be reliable with the sample of social workers surveyed, finding a Cronbach's alpha of 0.84.

Competence

Competence refers to a social worker's ability to efficiently provide care by use of congruent behaviors, attitudes and policies to benefit and address the needs of a client or client population (Educational Policies and Accreditation Standards, Council on Social Work Education, Inc., 2008, 2012). Social worker competency was measured using a modified version of the Geriatric Social Work Competency Scale II, available in the public domain. I reframed to measure levels of competency to serve deaf and hard of hearing rather than aging populations by substituting terms about geriatric populations to deaf and hard of hearing populations. However, the Social Work Competency Scale II has not been previously used to measure social workers competency with Deaf and hard of hearing populations. The questions aim to measure social workers level of competence to properly serve deaf and hard of hearing clients. Overall Competence scores were calculated on a continuous scale by summing the individual questions. Scores of 0 indicated not skilled, scores from 1-16 indicate beginning skill, scores

ranging from 17-32 indicate moderate skill, scores from 33-48 indicate advanced skill and scores from 49-64 indicate expert skill. Little research has been done to determine whether the competency scale is reliable with the aging population and to my knowledge the scale has not been previously assessed with the modifications for deaf and hard of hearing, however one study does show the internal reliability of the scale to have a Cronbach's alpha of 0.94 (Bonifas, 2014).. While modifications could have compromised the external validity of the scale, my findings of a Cronbach's alpha of 0.97 suggest that the scale is internally reliable with my sample.

Professional Experience with Deaf/Hard of hearing Clients

Experience with deaf clients refers to the frequency for which a social worker has worked with Deaf or hard of hearing clients, and the frequency with which they utilize communication services, namely ASL interpreters for those clients. Questions were taken from Ulloa (2014) to measure social workers' experience working with deaf populations and their familiarity with and use of accommodations that aim to make services accessible to the d/Deaf and hard of hearing, including: "How often have you worked with Deaf or Hard of Hearing Clients?" and "How often do you utilize communications services, such as an interpreter?" Answer choices were a Likert scale for frequency with options never, once, rarely occasionally, often and regularly. In my analysis I both used the questions as scale variables and dichotomized the responses to "no" when respondents selected never, or "yes" when respondents selected any other option to facilitate chi-square testing.

Demographics

The questionnaire included demographic questions that could be associated with variations in social workers attitudes and/or competency to care for the deaf and hard of hearing.

I included gender, race/ethnicity and hearing identity to assess the hypothesis that, according to Sue (2001), integration of multicultural perspectives is integral to providing sensitive and culturally competent care. Providers with shared identity characteristics, i.e. gender and race, have been shown to be better equipped to serve those populations (Sue, 2001). Additionally, when providers don't have shared individual identity characteristics with their clients, it has been shown that providers with shared *experiences* with their client base, such as having experienced discrimination, are more likely to provide more sensitive competent care (White, Sheridan & Mouny, 2010).

Gender

The demographics questions focused on gender identity ask “what is your gender identity” the options provided are as follows: Male, Female, Transgender Male, and Transgender Female. Gender incompetence refers to models of treatment that may ignore the experiences of marginalized gender populations, namely cisgender women, and transgender men and women (Sue, 2001). These populations are at high risk for victimization and discrimination (Sue, 2001). I hypothesized that cisgender and transgender women, as well as transgender men may have more positive attitudes about deafness, and thus may provide more competent care. Post data collection, these demographics and hypotheses were adjusted to reflect the gender demographics present in our sample. Gender was limited to male and female respondents, so I created a dichotomous variable (1=Male, 2=Female) and hypothesized that women would have more sociocultural attitudes to deafness, and in turn higher competence scores than male social workers.

Race & Ethnicity

The race/ethnicity demographics of the sample were assessed by asking two questions. One, “what is your racial identity”, answer options include: Asian, American Indian/ Alaska Native, Black/African American, Native Hawaiian/Pacific Islander, and White. Two, asking, “Are you Hispanic or Latino?” Both questions were taken from the United States Census Bureau (2018). These variables were adjusted for chi-square and t-test crosstabulation analysis to white and Black/non-white. Due to the extremely low response rate from Latino/Hispanic social workers, those who identified as Hispanic or Latino were categorized into the respective racial categories they selected. In accordance with Sue’s (2001) thesis stated above, I hypothesized that non-white providers may have more positive attitudes towards deaf people, and therefore more likely to provide competent care.

Hearing Identity

Hearing identity refers to a person’s ability to hear and how they identify their hearing ability. The question I used to assess these were “How do you identify?” Response options included: Hearing, d/Deaf, Hard of Hearing, Hearing Impaired, or Child of Deaf Adults (CODA). These variables were adjusted for chi-square crosstabulation analysis, to “hearing” and “hard of hearing” due to the low response rates from hearing impaired social workers, so those who identified as hearing impaired were re-coded into the hard of hearing sample. According to Sue (2001) and Sheridan, White & Mounty (2010), social workers who identify as Deaf, hard of hearing, or are a child of deaf adults (CODA) are more likely to have positive views and master level competency to serve deaf and hard of hearing populations as a result of their shared characteristics, experiences, and/or immersion within Deaf culture. I hypothesized that persons

with non-hearing identities will have the most positive attitudes and highest competency scores regardless of other individual level characteristics.

Professional Characteristics

Professional characteristics refer to social worker licensure, workplace, occupation, and whether or not respondents learned about d/Deaf and hard of hearing issues in their social work education. The following will detail each of these professional characteristics, their various options and the hypotheses associated with each characteristic.

Licensure type

In effort to understand the relationship between licensure, attitudes and competence I hypothesize that social workers with higher licensures (LCSW) have more positive attitudes and higher competency levels. The licensure question in the survey reads: “What is your Level of Licensure?” The options are LMSW, LCSW, no license, and other certificates with write in option. Write in options were analyzed and placed within the existing categories of LMSW, LCSW, and no license, to account for small cell size.

Workplace & Occupation

Workplace was measured by the question “What type of agency do you currently practice social work in?” Options provided include: school, hospital, clinic, public health agency, government agency, and a write in option for some other setting. These categories were reviewed and condensed into final categories for workplace were: school, hospital, clinic, government agency, and private practice, to account for small cell size and ensure legitimate chi-square tests.

Occupation is measures by the question “what is your occupation” options included: case manager, counsellor, therapist, administrator, and a write in option for some other occupation. Certain variables for place of work and occupation were analyzed and combined to address small

cell sizes and ensure valid chi-square analysis. Final categories for occupation were, counsellor/therapist, case manager, and administrator/supervisor. I hypothesized that social workers in certain workplaces or occupations may have some significant relationship with their attitudes and self-reported competence scores.

Education on Deaf & Hard of Hearing Issues

Finally, I was interested to see if social workers had learned about d/Deaf and hard of hearing issues in their social work education. This was measured by the question “did you ever learn about d/Deaf or hard of hearing issues in your social work programs?” The answer choices were, yes, no, and a write in option. Write in options were analyzed and placed into the yes or no categories accordingly. I hypothesized that social workers who had learned about d/Deaf and hard of hearing issues in their social work education would have higher attitude and competence scores than those who did not.

Methods of Analysis

I analyzed the survey data using univariate and bivariate statistical tests. In order to determine if there was a relation between social workers attitudes and competence a bivariate Pearson correlation was conducted. In order to analyze relationships between attitudes, competence and experience I conducted one-way ANOVA's, and Tukey post hoc tests on significant differences in means. To determine any relationships between attitudes competence and demographics I conducted independent samples t-tests. Relationships between attitudes, competence and professional characteristics were found by conducting one-way ANOVA's. While relationships between education, competence and attitudes were determined using independent samples t-tests. I conducted additional relationship tests the between the categorical

variables for attitudes, competence, demographics, professional characteristics, education and experience with chi-square crosstabulations to gain a better understating of relationships.

CHAPTER 4. RESULTS

I analyzed survey data in an effort to explore patterns or relationships between Louisiana social workers' attitudes to deafness, self-reported ability to competently serve d/Deaf and hard of hearing people, their experience working with d/Deaf clients and their individual demographic and professional characteristics. In the sections below, I detail these relationships, first presenting how respondent attitudes relate to competence and their experience with d/Deaf and Hoh clients. I then discuss variations in these relationships by respondent demographics (gender, race, and hearing identity), as well as professional level characteristics (license, job type, place of work, and education about d/Deaf and hard of hearing issues).

Respondent Demographics

Table 1 outlines the individual demographics of survey respondents; with respect to hearing identities the majority of respondents identified as "hearing" (89.6%) and 10.4% of respondents identified as hard of hearing. No respondents identified as d/Deaf or CODA. Overall, respondents were mostly female (87.8%). In terms of race, the majority of participants were white (75.7%), followed by Black/or non-white (24.3%).

With regards to professional characteristics, the majority of respondents held LCSW licensure (64.3%), followed by LMSW (19.1%), and 16.5% of respondents held no licensure. In terms of workplace the majority of respondents (23.5%) reported being employed at a school, followed by government and government affiliated agencies (23.5%), while 21.7% of surveyed social workers have their own private practices. The remaining respondents reported being employed at a hospital (13%) or a clinical setting (18.3%). Across the sample the majority of respondents (69.6%) reported therapist or counsellor as their occupation, followed by occupations in administration or supervisory positions (15.7%), and occupations as case managers (14.8%).

Finally, 30.4% of surveyed social workers reported having learned about d/Deaf and hard of hearing issues in their schooling, while 69.6% reported that they had not learned about d/Deaf and hard of hearing issues.

Table 1. Demographics & Characteristics of Survey Participants

Characteristic	%	n
Demographic:		
Hearing Identity		
Hearing	89.6	103
Hard of Hearing	10.4	12
Gender		
Male	12.2	14
Female	87.8	101
Race		
Black/Non-White	24.3	28
White	75.7	87
Professional:		
License		
LMSW	19.1	22
LCSW	64.3	74
No License	16.5	19
Workplace		
School	23.5	27
Hospital	13	15
Clinic	18.3	21
Government Agency	23.5	27
Private Practice	21.7	25
Occupation		
Case Manager	14.8	17
Counsellor/Therapist	69.6	80
Administrator/Supervisor	15.7	18
SW Education on d/Deaf & H/Hoh		
Yes	30.4	35
No	69.6	80

Attitudes towards the Deaf, Competence & Experience

Across respondents, social workers' attitudes toward deafness reflect a somewhat cultural perspective, the mean score was 4.22 (SD=0.505). The majority, 65.2 %, scored within the somewhat cultural (4-5) range, and 6.1% scored within the mostly cultural (5-6) range on the attitudes to deafness scale. On the other side of the spectrum, 27% of respondents scored within the somewhat medical and 1.7% mostly medical ranges (2-3 and 1-2, respectively). No one scored a perfectly cultural 6 or a perfectly medical 1, the minimum score was 2.64 and maximum was a 5.59 (see Table 2 for descriptive statistics).

Competence was measured by the Social Worker Competence scale adjusted to address competencies concerning serving d/Deaf and hard of hearing people. As shown in Table 2, respondents overall mean self-reported competence of 21.06 fell within, though on the lower side of, the 17-32 moderately competent range. The majority of competence scores (40%) indicated beginning competence (1-16), 35.7% indicated moderate competence, while 16.5% of the sampled social workers scored at an advanced competence (34-48) level. Finally, 2.6% of respondents (n=3) reported no competence with d/Deaf and hard of hearing populations. The maximum level of competence reported was a score of 62, just shy of a perfect score. Interestingly this respondent indicated in the additional comments that he has cerebral palsy and that "disability makes me more conscious of certain issues". Experience was measured by two variables: one, how often social workers work with d/Deaf and hard of hearing clients and two, how often they utilize an ASL interpreters when working with said clients. Respondents reported experience ranging from never having worked with d/Deaf and hard of hearing clients and/or interpreters, to regularly working with Deaf and hard of hearing clients and/or interpreters.

Table 2. Distribution of Attitudes, Competence & Experience with d/Deaf Clients

Variable	Mean or %(n)	SD	Min	Max	Range
Attitudes	4.22	0.505	2.64	5.59	2.95
Mostly Medical	1.7% (2)	-	-	-	-
Somewhat Medical	27% (31)	-	-	-	-
Somewhat Cultural	65.2% (75)	-	-	-	-
Mostly Cultural	6.1% (5)	-	-	-	-
Competence	21.06	14.907	0	62	62
None	2.6% (3)	-	-	-	-
Beginning	40% (46)	-	-	-	-
Moderate	35.7% (41)	-	-	-	-
Advanced	16.5% (19)	-	-	-	-
Expert	5.2% (6)	-	-	-	-
Experience					
<i>D/Hoh Client</i>		-	-	-	-
Never	19.1% (22)	-	-	-	-
Once	9.6% (11)	-	-	-	-
Rarely	42.6% (49)	-	-	-	-
Occasionally	19.1% (22)	-	-	-	-
Often	4.3% (5)	-	-	-	-
Regularly	5.2% (6)	-	-	-	-
<i>Interpreter</i>		-	-	-	-
Never	55.7% (64)	-	-	-	-
Once	9.6% (11)	-	-	-	-
Rarely	28.7% (33)	-	-	-	-
Occasionally	4.3% (5)	-	-	-	-
Regularly	1.7% (2)	-	-	-	-

Also shown in Table 2, the majority of respondents reported working with d/Deaf clients rarely (42.6%), followed by never (21.7%). Finally, 4.3% and 5.2% of respondents reported working with d/Deaf and hard of hearing clients often and regularly, respectively. With regards to experience in terms of working with an ASL interpreter, 55.7% percent of respondents reported never utilizing an interpreter, followed by rarely using an interpreter (28.7%). Interestingly, out of the respondents that reported regularly working with d/Deaf and hard of hearing clients (n=6), only 2 respondents reported also regularly utilizing a sign language interpreter.

Relationship between Attitudes towards Deafness, Competence & Experience

How do social workers' attitudes towards deafness relate to their competence and experience with working with Deaf and Hard of hearing clients? I hypothesized that social workers with more cultural attitudes would report higher competence scores, and social workers with more medical attitudes would report lower competence scores. The null hypothesis is that there is no association between social workers' attitudes towards working with the d/Deaf and hard of hearing and self-reported competence with working with them. I also hypothesized that social workers who have worked more frequently with d/Deaf and hard of hearing clients and utilized ASL interpreters would report higher attitude and competence scores than those who had not.

The bivariate correlation (shown in Table 3) between attitudes to deafness and competence indicated a significant positive relationship between attitude scores and competence, $r=0.388(113)=0.001$, $p<0.001$. This supports my hypothesis that that social workers with higher/more sociocultural attitude scores report higher levels of competence. The categorical relationships between attitudes and competence (shown in Table 3) also support this hypothesis.

Table 3. Correlation between Attitudes to Deafness and Social Worker Competence

Variables	Attitudes	Competence
Attitude Scores	-	0.388**
Competence Scores	0.388**	

** $p<0.05$, ** $p<0.01$, *** $p<0.001$; Two tailed*

Chi Square analyses of the relationship between the dichotomous attitudes (medical vs. cultural) and competence (none to beginning vs. moderate to expert) show that social workers' attitudes towards d/Deaf and hard of hearing people are significantly related to their competence in working with them $\chi^2(1, N=115) = 8.88$, $p<0.05$. As shown in Table 4, 63.9% of social

workers who reported no to beginning level of competence have medical attitudes towards deafness, while 65.8% of social workers with moderate to expert level competence scores have cultural attitudes towards the d/Deaf and hard of hearing.

Table 4. Attitudes to Deafness by Self-Reported Competence Level

N=115	Attitudes to Deafness		Total (n)
	Medical %(n)	Cultural %(n)	
Competence			
None-Beginning	63.9% (23)	36.1% (13)	36
Moderate-Expert	34.2% (27)	65.8% (52)	79
χ^2	-	-	8.88**

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

I conducted one-way ANOVA's to compare the effect of frequency of professional experience with d/Deaf and hard of hearing clients, and frequency of interpreter use on attitudes to deafness and competence (as seen in Table 5). There was a significant effect of working with d/Deaf or hard of hearing clients on attitudes, [F (5, 109) = 3.2, $p = 0.010$]. The 25 respondents that reported never having worked with a d/Deaf or hard of hearing clients had a mean attitude score of 4.04 (SD=0.54). While 11 respondents who have worked once with a d/Deaf or hard of hearing client had a mean attitude score of 3.91(SD=0.47), 49 respondents that had rarely worked with a d/Deaf or hard of hearing client had an average attitude score of 4.37 (SD=0.43). Next, 19 social workers who reported occasionally working with d/Deaf and hard of hearing clients had a mean attitude score of 4.33 (SD=0.41).

Table 5. Attitudes & Competence by Professional Experience

Attitudes				
	Df	SS	MS	p
Experience				
<i>D/Hoh Client</i>				
Between groups	5	3.725	.745	.010**
Within Groups	109	25.403	.233	-
Total	114	29.128	-	-
<i>Interpreter</i>				
Between groups	4	.761	.190	.568
Within Groups	110	28.367	.258	-
Total	114	29.128	-	-
Competence				
<i>D/Hoh Client</i>				
Between groups	5	3273.877	654.6	.004**
Within Groups	109	19384.566	177.84	-
Total	114	22657.44	-	-
<i>Interpreter</i>				
Between groups	5	3907.233	976.808	.001***
Within Groups	109	18750.211	170.456	-
Total	114	22657.44	-	-

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The 5 social workers who reported that they work with d/Deaf and hard of hearing clients often had an average attitude score of 3.90 (SD=0.85). Finally, 6 respondents reported that they regularly work with d/Deaf and hard of hearing folks had a mean attitude score of 4.35 (SD=0.50). There was, however, no significant effect of interpreter use on attitude scores, [$F(4, 110) = 0.74, p = 0.568$].

I ran Tukey's post hoc tests to further explore the significant differences in mean attitude scores across experience level (Table 6). Tukey post hoc tests revealed that attitude scores of social workers who have worked with deaf clients once, were significantly lower than social workers who reported working with deaf clients rarely (1-2 times per year).

Table 6. Comparisons of Attitude Scores by Experience

Attitudes Scores by Experience with d/Deaf Clients				
Group	<i>Attitudes</i>		Tukey's HSD Comparisons	
	<i>n</i>	Mean (SD)	Rarely	Once
Once	11	3.91 (0.47)	0.05	
Rarely	49	4.37 (0.43)	-	0.05

Table 5 also shows the effects of working with a d/Deaf or hard of hearing clients on competence. The effect of experience with d/Deaf and hard of hearing clients on competence is therefore significant, $[F(5, 109) = 3.7, p = 0.004]$. Suggesting that social workers who frequently work with d/Deaf and hard of hearing clients are more competent than those who do not. Social workers who have never worked with d/Deaf and hard of hearing clients ($n=25$) had a mean competence score of 13.28 ($SD=12.6$), a score that indicates beginning level skill. Social workers who worked with d/Deaf and hard of hearing clients once had a mean competence score of 17.64 ($SD=8.41$), a score on the very low side of moderately skilled, while respondents who reported working rarely with d/Deaf and hard of hearing clients had an average competence score of 26 ($SD=14.7$), moderately skilled. Those who work occasionally with d/Deaf and hard of hearing clients ($n=19$) have a mean competence score of 20.95 ($SD=13.04$), moderately skilled. Social workers who reported working often with d/Deaf and hard of hearing clients had a mean competence score of 13.60, a beginning score. Finally, social workers who reported working regularly with d/Deaf and hard of hearing clients had a mean competence score of 26.17 ($SD=13.26$), a moderate score.

I also conducted one-way ANOVA's to determine any relationships between the frequency with which social workers utilize sign language interpreters, and their self-reported competence to

work with d/Deaf and hard of hearing clients (Table 5). Results indicated that there was a significant effect of utilizing ASL interpreters on self-reported competence scores [$F(4, 110) = 5.73, p = 0.001$]. Social workers who have never worked with ASL interpreters ($n = 64$) had a mean competence score of 16.45 ($SD = 11.71$), beginning competence. While social workers who reported regularly utilizing ASL interpreters ($n = 2$) had a mean competence score of 41 ($SD = 5.66$), advanced level competence. Those who have utilized ASL interpreters once ($n = 11$) have a mean competence score of 21.06 ($SD = 15.08$), moderate competence while those who rarely utilize them ($n = 33$) have an average competence of 28.15 ($SD = 13.89$). Social workers who reported occasionally working with ASL interpreters had a mean competence score of 25.4 ($SD = 20.18$).

Table 7. Comparisons of Competence Scores by Experience

Competence Scores by Experience with d/Deaf Clients				
<i>Competence</i>			Tukey's HSD Comparisons	
Group	<i>n</i>	Mean (SD)	Rarely	Never
Never	25	13.28 (12.76)	0.002	
Rarely	49	26 (14.69)	-	0.002
Competence Scores by Interpreter Use				
<i>Competence</i>			Tukey's HSD Comparisons	
Group	<i>n</i>	Mean (SD)	Rarely	Never
Never	64	16.45 (11.71)	0.001	
Rarely	33	28.15 (13.89)	-	0.001

Tukey-post hoc tests revealed that social workers who reported never working with deaf clients had significantly lower competence scores than those who worked with deaf clients rarely (1-2 times a year). Similarly, Tukey post hoc tests showed that social workers who have never used as interpreter had significantly lower competence scores than those who reported using one

1-2 times per year (rarely) .These results suggest that social workers who work with d/Deaf and hard of hearing and utilize sign language interpreters for said clients report higher levels of competency than social workers who do not.

Relationships between Attitudes, Competence, Experience and Demographics

Research question 2 asked whether social workers that held a minority status (gender, race, ethnicity, and hearing identity) would have more positive attitudes towards d/Deaf and hard of hearing people and higher competence working with Deaf and Hard of Hearing clients. Specifically, I hypothesized that: 1) female social workers would have higher attitude scores and competence scores, 2) racial and ethnic minorities would have more positive attitudes, and higher competence scores and 3) people who identify as d/Deaf, hard of hearing, and CODA would have more positive attitude scores, and higher competence scores.

I conducted independent samples t-tests to compare mean attitude and competence scores between certain demographics, namely within hearing identities, gender, and race (See Table 8). With respect to hearing identities, I found no significant difference in mean attitude scores. Between hearing and hard of hearing respondents, hearing respondents had a mean attitude score of 4.24 (SD=5.2), as compared to the mean attitude score was 4.08 (SD=0.40) for hard of hearing respondents. Similarly, there were no significant differences in mean competence scores across hearing identities. Hearing respondents' mean competence score was 21.1 (SD=14.37) a close to hard of hearing respondents' mean competence score of 20.83 (SD= 12.08). There were no significant differences in mean attitude or competence scores by gender. Male respondents (n=14) mean attitude score was 4 (SD=0.59) and female respondents (n=101) mean attitude score was 4.26 (SD=0.49); the mean competence score for male respondents was 19.86 (SD= 17.18) and female respondents was 21.24 (SD=13.71).

Table 8. Attitudes to Deafness & Competence by Demographic Characteristics

N=115	Attitudes to Deafness M(SD)	Competence M(SD)	t
Hearing Identity:			
Hearing	4.24(0.52)	21.1(14.37)	1.09
Hard of Hearing	4.08(0.40)	20.83(12.08)	0.06
Gender:			
Male	4.0(0.59)	19.86(17.18)	-.183
Female	4.26(0.49)	21.24(13.71)	-.034
Race:			
Black/Non-white	4.31(0.52)	19.71(11.04)	0.95
White	4.20(0.50)	21.51(14.98)	-0.58

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Race also had no significant effect on attitudes or competence. Black and or non-white respondents had a mean attitude score of 4.31 (SD=0.52) and white respondents had a mean attitude score of 4.20 (SD= 0.50). In terms of competence, though I hypothesized that social workers with a minority status would have higher competence scores black and or non-white respondents mean score was 19.7 (SD= 11.04) and white respondents mean competence score was 21.5 (SD= 14.98, 113) = -0.58, $p = 0.561$), indicating no significant relationship between race and competence.

I also performed Chi-Square analyses to further examine the relationships between attitudes to deafness and demographic characteristics. The relationship between hearing identity and attitudes, [$(\chi^2(1, N=115) = 0.03, p=0.873)$], and race and attitudes [$(\chi^2(1, N=115) = 0.33, p=0.563)$], was not significant, as shown in Table 9. A significant relationship was found, however, between gender and attitudes [$\chi^2(1, N=115) = 4.95, p= 0.026$]. Across the sample 75.2% of female respondents scored on the cultural side of the attitude spectrum, while only

24.8% of male respondents scored cultural, suggesting that female social workers have more socio-cultural attitudes towards deafness than their male colleagues.

Additionally, chi square tests were performed in order to determine relationships between demographics and competence scores, also shown in Table 9. Though I hypothesized that respondents with different hearing identities would have higher competence scores, I found that there were no significant relationships between hearing identity and competence, [χ^2 (1, N=115) = 0.23, p=0.630]; gender and competence [χ^2 (1, N=115) = 0.28, p=0.599] or race and competence [χ^2 (1, N=115) = 0.33, p=0.341].

Table 9. Relationships between Attitudes, Competence, Experience & Demographics

N=115	Attitudes		Competence		Experience			
	Medical	Cultural	None. - Beg.	Mod. - Expert	D/HoH Client		Interpreter	
	%(n)	%(n)	%(n)	%(n)	Yes	No	Yes	No
Hearing:								
Hearing	28.2(29)	71.8(74)	42.7(44)	57.3(59)	77.7(80)	22.3(23)	45.6(47)	54.4(56)
HoH	33.3(4)	66.7(8)	50(6)	50(6)	41.7(5)	58.3(7)	41.7(5)	58.3(7)
χ^2	0.03		0.23		0.05		0.66	
Gender:								
Male	57.1(8)	24.8(6)	50(7)	50(7)	64.3(9)	35.7(5)	64.3(9)	35.7(5)
Female	42.9(25)	75.2(76)	42.6(43)	57.4(58)	71.2(80)	20.8(21)	41.6(42)	58.4(59)
χ^2	4.95*		0.28		0.03		2.57	
Race:								
Black/N	32.1(9)	27.6(19)	35.7(10)	64.3(18)	71.4(20)	28.6(8)	39.3(11)	60.7(17)
White	67.9(24)	72.4(63)	46(40)	54(47)	80.5(70)	19.5(17)	46(40)	54(47)
χ^2	0.33		0.91		0.49		0.38	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Finally, I also used chi-square tests to assess the relationships between demographics and experience. Within social worker demographics there were no significant relationships between hearing identity and experience with d/Deaf or hard of hearing clients [$\chi^2 (1, N=115) = 0.05$, $p=0.818$]. Similarly, gender [$\chi^2 (1, N=115) = 0.30$, $p=0.872$] and race [$\chi^2 (1, N=115) = 0.49$, $p=0.485$.] were also unrelated to experience (Table 9).

Relationships between Attitudes, Competence, Experience & Professional Characteristics

Research question 3 explored the relationships between attitudes, competence, and professional characteristics. I hypothesized that professional characteristics would be related to attitude and competence scores in three specific ways. One, social workers with higher licensure level would have more positive attitude and higher competence scores than social workers who have lower level licensure or no license at all. Two, certain workplaces or and occupations would have more positive attitude scores, and higher competence scores than others. Three, social workers who had learned about d/Deaf and hard of hearing issues in their social work education programs would have more positive attitude scores, and higher competence scores than those who did not.

I conducted one-way ANOVA tests to determine the effect of professional characteristics on attitudes and competence (Table 10 & 11). Social workers mean attitudes towards d/Deaf and hard of hearing people do not appear to be contingent upon license, place of work or occupation type. Across licensure there was no significant difference between means where LMSW's ($n=22$) had a mean attitude score of 4.20 ($SD= 0.50$), LCSW's ($n=74$) had a mean attitude score of 4.23 ($SD=0.54$) and respondents with no license ($n=19$) had a mean attitude score of 4.24 ($SD=0.28$) indicating that attitude scores are not influenced by social workers licensure, thus licensure had no significant effect on attitude scores at the $p<0.05$ level, [$F (2,112) = 0.03$, $p=0.974$].

Table 10. Attitudes by License, Workplace & Occupation

Attitudes	Df	SS	MS	F	p
License					
Between groups	2	.01	.01	.03	.974
Within Groups	112	29.11	.26	-	-
Total	114	29.13	-	-	-
Workplace					
Between groups	4	.25	.06	.24	.917
Within Groups	110	28.88	.26	-	-
Total	114	29.13	-	-	-
Occupation					
Between groups	2	.097	.48	1.92	.151
Within Groups	112	28.16	.25	-	-
Total	114	29.13	-	-	-

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Similarly, workplace, [F (4, 110) = 0.24, $p = 0.917$] and occupation [F (2, 112) = 1.92, $p = 0.151$] had no significant effect on attitude scores. Among the 27 school social workers they had a mean attitude score of 4.22 (SD=.46), 15 social workers who work in a hospital had a mean attitude score of 4.30 (SD=.58), 27 social workers who work in a government agency had a mean attitude score of 4.20 (SD=.46), and 25 social workers who have their own private practice had a mean attitude score of 4.18 (SD=.51). No significant differences in mean attitude scores or competence scores were found across occupation type.

As seen in Table 10, I also conducted one-way ANOVA's to determine if licensure, workplace, or occupation have any significant effect on competence. None of these professional characteristics had any significant effect on competence scores. For instance, LMSW mean competence score was 18.18 (SD=12.57), LCSW mean competence score was 22.15 (SD=14.53), and unlicensed respondents had a mean competence score of 20.21 (SD=14.24), all within the moderately skilled competence level indicating no significant difference between means across license [F (2, 112) = 0.71, $p = 0.494$]. Neither workplace [F (4, 110) = 0.68,

p=0.605], nor occupation [$F(2, 112) = 2.66, p=0.074$] had a significant relationship with competence scores.

Table 11. Competence by License, Workplace & Occupation

Competence	Df	SS	MS	F	p
License					
Between groups	2	283.65	141.82	0.71	0.494
Within Groups	112	22,373.80	199.77	-	-
Total	114	22,657.44	-	-	-
Workplace					
Between groups	4	549.71	137.43	.68	.605
Within Groups	110	22107.73	200.98	-	-
Total	114	22657.44	-	-	-
Occupation					
Between groups	2	1026.8	513.42	2.66	.074
Within Groups	112	21630.6	193.13	-	-
Total	114	22657.44	-	-	-

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Chi Square tests also revealed no significant relationships between level of licensure and attitudes [$\chi^2(2, N=115) = 2.68, p=0.974$]. Within the sample 75.7% of survey respondents with LCSW licenses scored in the cultural attitude range. Within the unlicensed population 73.7% of respondents earned cultural attitude scores. Finally, 54.5 % of social workers with LMSW licenses earned cultural attitude scores (Table 11). Workplace was also not significantly related to attitudes [$\chi^2(4, N=115) = 1.96, p=0.917$], nor were occupation and attitudes [$\chi^2(2, N=115) = 0.94, p=0.151$]. Similarly, no significant relationships were found between level of license and competence; $\chi^2(2, N=115) = 1.51, p=0.494$, workplace and competence $\chi^2(4, N=115) = 1.77, p=0.605$, or occupation and competence $\chi^2(2, N=115) = 0.92, p=0.074$.

I also used chi square tests to examine the relationships between professional characteristics and their experience with (a) d/Deaf and hard of hearing clients and (b) interpreters, shown in Table 10. Results showed no significant relationships between level of

license and experience with d/Deaf and hard of hearing clients χ^2 (2, N=115) = 3.38, $p=0.184$ or interpreters, χ^2 (2, N=115) = 0.82, $p=0.648$.

Table 12. Attitudes, Competence, Experience by Professional Characteristics

N=115	Attitudes		Competence		Experience			
	Medical	Cultural	None-Beg.	Mod.-Expert	D/HoH Client		Interpreter	
	%(n)	%(n)	%(n)	%(n)	Yes	No	Yes	No
License								
LMSW	45.5(10)	54.5(12)	54.6(12)	45.5(10)	77.3(17)	22.7(5)	36.4(8)	63.6(14)
LCSW	24.3(18)	75.7(56)	41.9(31)	58.11(43)	79.7(59)	20.3(15)	47.3(35)	52.7(39)
None	26.3(5)	73.7(14)	36.8(7)	63.2(12)	73.7(14)	26.3(5)	42.1(8)	57.9(11)
χ²	2.68		1.51		3.38		0.82	
Workplace								
School	25.9(7)	74.1(20)	44.4(12)	55.6(15)	70.4(19)	29.6(8)	51.9(14)	48.2(13)
Hospital	33.3(5)	66.7(10)	53.3(8)	46.7(7)	60(9)	40(6)	33.3(5)	66.7(10)
Clinic	28.6(6)	71.4(15)	33.3(7)	66.7(14)	76.2(16)	23.8(5)	33.3(7)	66.7(14)
Govt. Agency	33.3(9)	66.7(18)	40.7(11)	59.2(16)	74.1(20)	25.9(7)	51.9(14)	48.1(13)
Pvt. Practice	24(6)	76(19)	48(12)	52(13)	64(16)	36(9)	44(11)	56(14)
χ²	1.96		1.77		1.72		3.00	
Occupation								
Case Mgmt.	41.2(7)	58.8(10)	47(8)	53(9)	70.6(12)	29.4(5)	47.1(8)	52.9(9)
Counsellor/Therapist	30(24)	70(56)	45(36)	55(44)	68.7(55)	31.3(25)	40(32)	60(48)
Admin./Supervisor	27.8(5)	72.2(13)	33.3(6)	66.7(12)	72.2(13)	27.8(5)	61.1(11)	38.9(7)
χ²	0.94		0.92		0.09		2.71	

* $p<0.05$, ** $p<0.005$, *** $p<0.001$

Similarly, no significant relationships were found between workplace and experience with D/deaf and hard of hearing clients, χ^2 (4, N=115) = 1.72, $p<0.05$, or interpreters χ^2 (4, N=115) = 3.00, $p<0.05$. Finally, relationships between occupation and experience χ^2 (2, N=115) = 0.09, $p<0.05$, or occupation and interpreter use χ^2 (2, N=115) = 2.71, $p<0.05$, were also not significant.

I additionally hypothesized that social workers who have learned about d/Deaf and hard of hearing issues in their studies would have higher attitude and competence scores than their colleagues who have not. The relationship between learning about d/Deaf and hard of hearing and attitudes was not significant [χ^2 (2, N=115) = 0.73, $p=0.393$]. However, I did find a significant relationship between education and competence scores [χ^2 (2, N=115) = 14.2, $p<0.000$], as shown below in Table 13. Of the 35 social workers who reported having learned about d/Deaf and hard of hearing issues in their education, 82.9% earned moderate to expert level competence scores. Only 45% of those who did not learn about the above issues earned competence scores that fell within the moderate to expert level of competence.

Table.13 Relationships between Education, Attitudes, Competence & Experience

N=115	Attitudes		Competence		Experience			
	Medical	Cultural	None-Beg	Mod-Expert	D/Hoh		Interpreter	
	%(n)	%(n)	%(n)	%(n)	Yes %(n)	No %(n)	Yes %(n)	No %(n)
SW Education:								
Yes	25.7(9)	74.3(26)	17.1(6)	82.9(29)	80(28)	20(7)	57.1(20)	42.9(15)
No	33.8(27)	66.2(53)	55(44)	45(36)	65(52)	35(28)	38.8(31)	61.2(49)
χ^2	0.73		14.20***		2.59		3.34	

$s^*p<0.05$, $**p<0.005$, $***p<0.001$

These findings suggest that social workers who did not learn about d/Deaf and hard of hearing issues may have lower competence with working with the d/Deaf and hard of hearing than social workers who have learned about these issues. Additionally, I found a significant relationship between social work education and interpreter use [χ^2 (2, N=115) = 3.34, $p=0.05$]. Where 57% of social workers who learned about d/Deaf and hard of hearing issues utilized interpreters for their d/deaf clients, while 61.2% of social workers who did not learn about d/Deaf issues did not utilize interpreters for their d/Deaf clients. These findings indicate that social workers who had

learned about d/Deaf and hard of hearing issues were more likely to utilize an interpreter when working with a d/Deaf or hard of hearing client. I found no significant relationships between education on d/Deaf and HH issues and experience with a d/Deaf or hard of hearing client [χ^2 (2, N=115) = 2.59, $p=0.80$].

In order to further examine the relationships between education, attitudes and competence I ran independent t-tests to determine if receiving education about d/Deaf and hard of hearing issues has any significant effect on attitudes or competence. Similar to the other professional characteristics, I did not find a significant relationship between education and attitudes. The 35 respondents who reported learning about d/Deaf and hard of hearing issues in their MSW programs mean attitude score of 4.31(SD=.44) was not significantly different from the mean attitude score of the 80 respondents who had not learned about d/Deaf and hard of hearing issues of 4.19 (SD=0.53) [$t(113)=1.17$, $p=0.25$]

Table 14. Attitudes to Deafness & Competence by Education

N=115	SW Education on D/Hoh Issues		t
	Yes M (SD)	No M (SD)	
Attitudes to Deafness	4.31 (0.44)	4.19 (0.53)	1.17
Competence	28.37 (11.04)	17.88*** (14.98)	3.90
n	(n=35)	(n=80)	

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

I did find that education was significantly related to competence, as seen in Table 14. Social workers who learned about d/Deaf and hard of hearing issues had a mean competence score of 28.37 (SD=11.04), while social workers who had no education concerning d/Deaf and hard of hearing issues had a mean competence score of 17.88, (M=17.88, SD= 13.32), [t

(113)=3.90, $p=0.001$. This supports my hypothesis that social workers who have learned about d/Deaf issues in their MSW programs would have higher self-reported competence with working with the Deaf and Hard of Hearing.

Summary of Results

I found significant positive correlation between social workers attitudes to deafness and self-reported competence (0.388, $p<0.01$), supporting my hypothesis that social workers with more sociocultural attitudes would report higher levels of competence. Experience with d/Deaf and hard of Hearing clients and utilizing an interpreter was also related significantly to level of competence. Social workers who had experience working with d/Deaf and hard of hearing folks report higher competence scores than those without any experience, [$F(5, 109)=3.2$, $p=0.010$]. Additionally, social workers that reported having utilized an interpreters was significantly related to higher levels of competence [$F(4, 110)=5.73$, $p=0.001$]

Most individual demographic characteristics were not significantly related to attitudes to deafness or competence, with the exception of gender. Women have more socio-cultural attitudes towards deafness as compared to male social workers, [$\chi^2 (1, N=115) = 4.95$, $p= 0.026$]. Similarly, most professional characteristics such as licensure level, workplace, and occupation were not related to attitudes, competence or experience. Education about d/Deaf and hard of hearing clients in MSW program was, however, found to be significantly related to competence, [$\chi^2 (2, N=115) = 14.2$, $p=0.001$].

CHAPTER 5. DISCUSSION

Discussion

My findings indicate that social workers' attitudes to deafness and self-reported competence scores are significantly positively correlated ($r = 0.388$, $p = 0.001$). In other words, social workers whose attitudes towards the D/deaf and hard of hearing are more sociocultural report higher competency to work with d/Deaf and hard of hearing clients. These results were corroborated by chi-square tests, ($\chi^2 (1, N=115) = 8.88$, $p = 0.003$), which reiterate that social workers with more social cultural attitudes tend to report higher levels of Deaf competence. Additionally, I found that working regularly with d/Deaf and hard of hearing clients was related to having more positive sociocultural attitudes towards d/Deaf and hard of hearing people ($[F (5, 110) = 3.2$, $p = 0.10]$). Overall, surveyed social workers had "somewhat cultural" attitudes to deafness, and beginning to moderate competence scores.

This is consistent with earlier findings from research with Texas social workers. Ulloa (2014) found that they overall have very positive sociocultural attitudes towards the d/Deaf. Similarly, she also found that the social workers who worked more frequently with d/Deaf and hard of hearing clients had slightly more positive attitudes (Ulloa, 2014). I also expanded the concept of experience to include whether or not social workers use interpreters for Deaf and hard of hearing clients. According to the National Association of Social Workers (2009) many social workers are not aware of their responsibilities to accommodate d/Deaf and hard of hearing clients, including ASL interpreters for the d/Deaf, and hearing amplifiers, or audiological services for the aging hard of hearing. In 1990, Title 2 of the Americans with Disabilities Act (ADA) mandated these accommodations among others as necessary to properly serve d/Deaf and

hard of hearing clients, along with other accommodations for disabled Americans. (Americans with Disabilities Act, 1990).

I found that social workers who work more frequently with d/Deaf and hard of hearing clients have more sociocultural attitudes than those who have not [$F(5, 110) = 3.2, p = 0.010$]. Respondents who reported never having worked with a d/Deaf or hard of hearing client had slightly less cultural attitudes to deafness (scores ranging from 2-4), while social workers who had worked with d/Deaf clients had higher scores indicating stronger levels of sociocultural attitudes (scores ranging from 4-5). The effect of working with d/Deaf and hard of hearing clients on attitudes, therefore was significant.

Additionally, I found that social workers' utilization of sign language interpreters for their d/Deaf or hard of hearing clients was related to higher competence [$F(4, 110) = 5.73, p = 0.001$]. Additionally, out of the 6 social workers who reported that they work regularly with d/Deaf and hard of hearing people, only 2 reported regularly utilizing interpreters for those clients. This is consistent with prior research conducted with physicians which showed that while 63% of caregivers knew securing ASL interpreters for their d/Deaf clients would be best for ensuring proper communication, only 22% of caregivers actually utilized them (Ebert & Heckerling, 1995; Steinberg, Sullivan, & Loew, 1998). Access to language is an integral factor in how the d/Deaf and hard of hearing receive and understand pertinent information, if an aging adult with hearing loss does not understand what their caregiver is telling them, they may be deemed by the caregiver as unresponsive; likewise, if a caregiver is trying to relay health information to a Deaf client without an interpreter the client may not fully understand what is being said. Studies have shown that when the Deaf and aging hard of hearing are deprived of a language, or an accommodation to help them understand said language they are more likely to

have higher rates misdiagnoses of serious illness, and very low health literacy (National Association for the Deaf, 2018, The American Psychological Association 2011; Kemper & Lacal, 2004; Steinberg, Sullivan, & Loew, 1998)

Studies of best practice methods show that providers who share the same experiences as their clients, including having a shared race, ethnicity, gender, or ability which can encompass deafness and hearing loss, may be better able to provide culturally competent and accessible care (Mayer & Zane, 2013; Sheridan, White & Mounty, 2010). My study explored this by examining one, whether or not social workers' demographic characteristics were related to their attitudes and competence and two, by specifically asking if social workers with different hearing identities were more culturally competent than those that are hearing or have no significant hearing loss. In response to the first, most of the social worker demographics had no relationship with attitudes or competence with the exception of gender.

I found a significant relationship between gender and attitudes towards the d/Deaf and hard of hearing; 75.2% of female respondents had sociocultural attitudes, while only 24.8% of their male colleagues' attitudes fell within the sociocultural range. While this result is consistent with my hypothesis that women may have more positive attitudes due to their minority status, it may also be due to the majority of respondents being women (n=101), thus skewing the results some.

In response to the second, while I found no significant relationship between hearing identity and competence in my results, this could be due to the very small amount of non-hearing respondents. A 2002 study of d/Deaf and hard of hearing clients found that an overwhelming majority of participants would be more likely to seek help from a d/Deaf provider (Barnett, 2002). Unfortunately, similar to the proportion of my sample that was d/Deaf or hard of hearing

(10.4%, n=12), the number of d/Deaf social workers, therapists, and medical professionals is currently low nationwide, with about 10% of all d/Deaf Americans being employed in the above fields (National Deaf Center, 2016, Sheridan, White & Mounty, 2010; Steinberg, Sullivan & Loew, 1998).

A 2010 study stressed the importance of making social work education programs more accessible to d/Deaf and hard of hearing students. Suggesting that having more d/Deaf and hard of hearing social workers in the field could benefit d/Deaf populations. This study suggested that caregivers who share certain demographics with their clients are usually more competent and aware of certain issues, in our case deafness, Deaf culture, and hearing loss (Sheridan, White & Mounty, 2010). d/Deaf social workers who sign could also eliminate the need to have a third-party interpreter, occasionally cited as a barrier to care due to confidentiality concerns (Barnett, 2002).

However, one demographic question I did not ask that could have also provided evidence for my hypothesis was “do you have a disability?”, a 2005 study proposed that physical disabilities should be considered from cultural viewpoints, comparable to the concept of Deaf culture (Eddey & Robey, 2005). Suggesting that individuals with disabilities could be more competent to serve d/Deaf and hard of hearing populations. Preliminary evidence that this could be an important relationship was also found in my study. One survey respondent who reported a competence score of 62, just two points below an expert level competence, indicated at the end of his survey that he “likes to be aware” of certain issues concerning abilities due to his being a person with cerebral palsy. Further research could consider how identifying as having another type of disability outside of hearing identity that may relate to competence.

Finally, I found that social workers level of self-reported competence was related significantly to whether or not they learned about d/Deaf issues in their social work education programs [$F(1, 113) = 15.2, p=0.013$]. Social workers who learned about d/Deaf issues was related to higher self-reported competence with working with the Deaf and Hard of Hearing. Several studies have indicated that interventions and continuing education models related to serving d/deaf and hard of hearing people could improve human services workers' cultural competence when working with these groups (Polakoff, 1980; Hoang, LaHousse, Nakaji & Sadler 2010; Cawthon et. al, 2013; Ulloa, 2014). These findings, along with my own suggest that while social workers may have certain attitudes, their level of competence could be more so influenced by their own personal experiences working with d/Deaf and hard of hearing clients.

Limitations

While my study yielded some significant relationships between social workers' attitudes towards d/Deaf and hard of hearing people and their competence to work with those populations, as related to their demographics, and professional characteristics, these results must be taken in the context of a few limitations. First, only social workers that are either subscribed to the NASW-LA email list or members of the NASW-LA Facebook page were invited to be surveyed. This number of respondents may not entirely capture the larger scope of Louisiana social workers in terms of demographics (gender, race, licensure, and hearing identity). This could result in sampling bias (Rubin & Babbie, 2009), and a sample that is not representative of the population of Louisiana social workers with respect to race, gender, and professional characteristics. However, the demographics of our survey sample were found to be representative of state and nationwide social worker demographics, consisting of hearing, white females. 79.6% of social workers in the United states are female, 72.6% are white, consistent

with our sample of 87.8% female, 75.7% white, and 89.6% hearing (Council on Social Work Education, 2016; 2018).

Additionally, the total viable response population, $n=115$ is itself a small sample of the NASW-LA listserv. Too small response rates can result in a large margin of error (Bartlett, Kotrlik & Higgins, 2001). Margins of error refer to the amount of random sampling errors present in a survey's results (Bartlett, Kotrlik & Higgins, 2001) where more acceptable margins of error range from 3-10% (Bartlett, Kotrlik & Higgins, 2001). A margin of error was calculated for our sample size ($n=115$) and found to be 9.1%, while this margin of error is not extremely high, it is still on the higher end of the desired range, and there is a possibility certain data may be skewed to reflect certain relationships erroneously. However, since our respondent demographics are shown to be representative of current Louisiana social workers, we do not think that the smaller sample size will affect what we desire to measure and analyze concerning demographics, attitudes, and competence.

With regards to the measures, we must also consider that the entirety of the survey relies on self-report data. While the nature of self-report data is not problematic for questions concerning demographics, certain questions that rely on self-report data could result in some response bias, namely social desirability bias with respect to the attitudes to deafness and social worker competence scores (Larson & Bradshaw, 2017). Recent research suggests human service professionals when surveyed about cultural competence sometimes answer questions in a way that makes them appear more competent (Larson & Bradshaw, 2017). While I found that social workers who learned about d/Deaf and hard of hearing issues in their education programs, had higher competence scores than those who did not, this may be due to respondents' perception that learning about something may make them more competent. However, our results

surprisingly yielded some very low competence scores ranging from 0-3 suggesting that over-estimating competence may not be a substantial concern.

Despite the possible limitations mentioned above, my findings provide real insight into how social workers attitudes towards the d/Deaf and hard of hearing, competence, and experience in working with this group are related to each other and personal and professional characteristics. Namely, that social workers who have more sociocultural attitudes to deafness report higher competence scores, and that social workers who were educated on issues surrounding d/Deafness and Deaf culture in their social work education report higher levels of cultural competence than those who were not. Past research on the issues experienced by the Deaf and aging hard of hearing is limited and often does not approach hearing loss and deafness in terms of sociocultural attitudes, or cultural competence—which as explained in previous sections is strengths-based and can be beneficial to all people with hearing loss or deafness, we hope to expand on the small amount of existing research by employing the sociocultural model of d/Deafness and hearing loss to the research base. My findings suggest development and implementation of policy and education level interventions to help social workers and other human service providers could help address the gaps in social service provisions to the Deaf and aging hard of hearing.

CHAPTER 6. CONCLUSIONS & IMPLICATIONS

In this analysis of Louisiana social workers, I found that social workers attitudes toward the d/Deaf and hard of hearing were significantly related to their competence in working with them, suggesting that knowledge of deafness as a culture creates more culturally competent social workers. I also found that there are significant relationships between social workers' professional experiences learning about or serving d/Deaf and hard of hearing clients. These findings indicate that social workers who are more competent to serve d/Deaf and hard of hearing clients first, have had experience with d/Deaf and hard of hearing people, second, have received education about d/Deaf issues, and third have sociocultural attitudes towards deafness and hearing loss. By creating more culturally competent social workers, we can address the higher instances of misdiagnosis, higher mortality rates, low health literacy, and stigma that is associated with deafness and hearing loss (Sheridan, White & Mouny, 2010). My findings suggest several points of intervention that could better equip social workers to competently serve and accommodate d/Deaf and hard of hearing people at the practice, education and policy arenas, as well as several areas for future research

Implications for Practice

First, in terms of social work practice and education, my findings suggest that experience with d/Deaf and hard of hearing clients had a significant effect on social worker attitudes and competence. Suggesting that practice-based interventions where social workers could work directly with d/Deaf and hard of hearing clients could better prepare them to accommodate these high-risk populations. Working directly with these clients can also provide a foundation for more sociocultural attitudes towards deafness, and therefore foster a more culturally competent social worker. Additionally, I found that education about d/Deaf and hard of hearing issues were

related to competence. Educational interventions that assist social work students in differentiating between medical and socio-cultural understandings of deafness, and how these understandings can benefit or disadvantage their future d/Deaf and hard of hearing clients, could help to improve both of these dimensions. Past studies of cultural competence interventions for human service providers that focus on d/Deafness, have shown that educating caregivers about Deaf culture encouraged caregiver's to approach serving d/Deaf and hard of hearing populations with a strengths-based culturally competent framework (Hoang, LaHousse, Nakaji & Sadler, 2010).

Additionally, my findings suggest a there may be a link between availability of d/Deaf and Hard of Hearing professionals and access to care. Within my research sample only 12 respondents identified as hard of hearing. My findings on social workers demographics with respect to hearing identity appear to align with social worker demographics nationally; where in 2010 there were only about 250 d/Deaf social workers nationwide (Sheridan, White, & Mounty, 2010). As stated in the literature review, an overwhelming number of d/Deaf clients express that they would prefer a d/Deaf or hard of hearing professional, over a hearing one. However, there is a dearth in the amount of human service providers who are d/Deaf (Sheridan, White, & Mounty, 2010). While more research about d/Deaf and hard of hearing professionals needs to be done, it is evident that improving accessibility of social work education programs, and workplaces for d/Deaf and hard of hearing students and professionals is one key component of increasing number of practicing professionals. More d/Deaf and hard of hearing professionals could shift the paradigm for social workers that serve d/Deaf populations and assist in the education of hearing providers on how to serve these populations is a culturally competent and accessible manner.

Implications for Policy

I found that while some social workers report working with d/Deaf and hard of hearing clients on a regular basis, they do not always utilize ASL interpreters for these clients. Which suggests interventions at the policy-level that could improve access to care. Studies show that when d/Deaf and hard of hearing populations are not being accommodated in terms of language and communication they are at high risk for misdiagnosis of serious illness, such as schizophrenia or dementia, and lowered health literacy (Olsin & Swabey, 2017; American Psychiatric Association, 2011; Black & Glickman, 2006; Gulliford, Munoz, Morgan, Hughs, 2002). Title 2 of The Americans with Disabilities Act (1990) requires that any professional working with d/Deaf and hard of hearing clients must provide accommodation to ensure that their clients are well informed and understand the content of their appointments with health and human service workers.

Agencies *should* follow the laws outlined in the ADA which include but are not limited to: one, on call interpretive services which is a round the clock exhaustive list of on-call interpreters that can be made available to d/Deaf clients on an as needed basis, additionally the list must be updated annually. Two, the utilization of qualified or licensed interpreters that are capable of interpreting services effectively, accurately, impartially, and will abide by any laws regarding confidentiality. Three, availability of TTY or telecommunications devices that utilize licensed interpreters or live captions for d/Deaf and hard of hearing clients. Finally, availability of auxiliary aids such as hearing amplifiers that can be provided to clients who would benefit from sound amplifying devices. However, many agencies do not make these services available to their d/Deaf clients, or they deem the services too expensive and discontinue them (National Association of the Deaf, 2016). One survey respondent stated that securing interpreters was a

“financial burden” at his place of work, so the few Deaf clients that his agency did serve were referred elsewhere. According to their current social work intern, as of this year, Deaf focus—a capitol area organization dedicated to assisting d/Deaf and hard of hearing populations is campaigning in support of a bill currently entitled the Elizabeth Canady Bill. This bill would allow Medicare, Medicaid, and select private insurance providers to cover qualified and licensed ASL interpreters for the d/Deaf. Doing so could prevent agencies from turning away or discontinuing services for their d/Deaf clients due to matters of funding.

Additionally, policies enforcing that agencies abide by these laws could greatly benefit d/Deaf and hard of hearing populations. First, a policy could be introduced that would regularly require agencies to show their updated lists of available qualified interpreters in the area to ensure that those resources can be made available. Lastly, more stringent laws regarding who can and cannot be an interpreter should be introduced and carried out. Recently there have been several instances of professionals hiring “interpreters” for special events or lectures, and the interpreter is either not skilled enough to fully convey the messages being spoken, or they are not an interpreter at all and are merely faking it (Dean, 2015). This is both against the law and a disservice to d/Deaf and hard of hearing people, a disservice that could contribute to their further marginalization. With that being said, more state or nationwide registries of licensed interpreters should be enforced to ensure that the interpreters that are hired are indeed professionals. Additionally, the Elizabeth Canady Bill would help ensure that properly vetted qualified interpreters would be made available for d/Deaf clients to avoid gaps in communication, while also alleviating the perceived financial burden of securing ASL interpreters.

Directions for Future Research

A number of further questions emerge from our findings, specifically three. First, I found that the majority of social workers had somewhat cultural attitudes to deafness, and many reported being at least moderately competent to serve d/Deaf and hard of hearing populations. This leads to the question, what is the larger scope of social worker attitudes to deafness and competence, specifically are my findings representative of social workers' attitudes and competence nationwide? A national survey could be extremely helpful in learning about social workers' attitudes and competence nationwide to see if there are any significant differences in attitudes and competence by region. Additionally, doing so could give a clearer picture of how many d/Deaf or hard of hearing social workers there are nationwide. For future endeavors this would prove useful in developing continuing education models for social workers to work with d/Deaf and hard of hearing populations, especially if more d/Deaf and hard of hearing social workers are included in the data, as their input would be helpful in creating the aforementioned interventions. Also employing different research methods such as multivariate regressions in future research could help improve our understandings of certain relationships or controls.

Second, I found that one respondent (who had the highest competence score out of the entire sample population) mentioned that he stays abreast of issues within differently abled populations due to his having cerebral palsy. As such, how do social workers that are differently abled become more aware of sociocultural understandings of deafness? Future surveys could include a question that inquires about respondent disabilities along with measures of attitudes, competence and experience in effort to better understand this relationship. Furthermore, I could expand on the above by conducting a qualitative research study with disabled social workers to answer the research question: are disabled social workers more culturally competent than able-bodied social

workers? Finally, I found that education on issues surrounding d/Deafness and hard of hearing populations in MSW program is positively related to social workers competence to work with d/Deaf and hard of hearing people. How do continuing education or intervention models that address d/Deaf issues and d/Deaf cultural competence affect social workers' attitudes and competence? A test re-test study could be done of an intervention that aims to improve social workers' cultural competence with d/Deaf and hard of hearing populations. Additionally, I could expand further on deaf cultural competence by conducting a qualitative research study with d/Deaf and hard of hearing populations, to answer the question: what is accessible and culturally competent care? With respect to the views and opinions from d/Deaf communities. Doing so could help attain and develop further insight to accessible and culturally competent care for the d/Deaf and assist in the development in intervention and education programs for human service workers.

Summary

I aimed to examine how social workers' attitudes to deafness inform their competence in working with d/Deaf and hard of hearing clients. Additionally, I aimed to determine if there were any significant relationships between the above and social worker demographics, and characteristics. Interestingly, most demographic and professional characteristics examined were not significantly related to social worker competence. However, attitudes, experience and d/Deaf education were closely related to higher levels of social worker competence. We hope to utilize these results to expand on past research in an effort to benefit and bring culturally competent and accessible care to d/Deaf and hard of hearing; an intersectional underserved population (Kuenberg, Fellingner & Fellingner, 2015; Sadler, Huang, Padden, Elion, Galey, Gunsauls, & Brauer, 2009).

A Jewish proverb in the Torah states “no one is more deaf than the man that will not listen”. My findings suggest application of this proverb to this problem. Further research, particularly research that utilizes sociocultural models of d/Deafness as outlined by deaf communities, should be used in educating social workers about Deaf culture and d/Deaf and hard of hearing issues either in their schooling or in continuing education interventions. Doing so could have a real impact on improving access to care for d/Deaf and hard of hearing populations, and in turn help decrease the barriers to care for these underserved populations.

APPENDIX A. IRB APPROVAL FORM

ACTION ON PROTOCOL APPROVAL REQUEST



TO: Jennifer Scott
Social Work

FROM: Dennis Landin
Chair, Institutional Review Board

DATE: December 5, 2018

RE: IRB# 4153

TITLE: Social Workers' Perspectives on Deafness & Preparedness to Serve Deaf & Hard of Hearing Clients

Dr. Dennis Landin, Chair
130 David Boyd Hall
Baton Rouge, LA 70803
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New Protocol/Modification/Continuation: Modification

Brief Modification Description: Revised the survey.

Review type: Full ☐ Expedited ☒ **Review date:** 12/5/2018

Risk Factor: Minimal ☒ Uncertain ☐ Greater Than Minimal ☐

Approved ☒ **Disapproved** ☐

Approval Date: 12/5/2018 **Approval Expiration Date:** 11/19/2019

Re-review frequency: (annual unless otherwise stated)

Number of subjects approved: 1400

LSU Proposal Number (if applicable):

By: Dennis Landin, Chairman 

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING –

Continuing approval is **CONDITIONAL** on:

1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. **SPECIAL NOTE: Make sure you use bcc when emailing more than one recipient.**

**All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at <http://www.lsu.edu/irb>*

APPENDIX B: CONSENT FORM & INVITATION

Louisiana State University Consent Form

1. Study Title: Social Workers' Perspectives and Understandings of Deafness & Hearing Loss

2. Performance Site: Louisiana State University and Agricultural and Mechanical College

3. Investigators: The following investigators are available for questions about this study

Dr. Jennifer L. Scott jenscott@lsu.edu

Esperanza J. Garibay egarib3@lsu.edu

4. Purpose of the Study: The following study aims to answer how social workers perspectives and understanding of Deafness and hearing loss inform their ability to care for the Culturally Deaf and older adults with hearing loss.

5. Subject Inclusion: Licensed social workers in the state of Louisiana

6. Number of subjects: 1350 (recruited)

7. Study Procedures: Subjects will answer a set of survey questions concerning deafness, hearing loss, and preparedness to work with and accommodate deaf and hard of hearing populations. This survey should take no longer than 15 minutes.

8. Benefits: Contribution to a limited research base so as to improve services provided to deaf and hard of hearing populations.

9. Risks:

Online data being hacked or intercepted:

This is a risk you experience any time you provide information online. We're using a secure system to called Qualtrics, but we can't completely eliminate this risk.

Breach of confidentiality: There is a chance your data could be seen by someone who shouldn't have access to it. We're minimizing this risk in the following ways:

This survey is confidential—All identifying information is removed and replaced with a study ID, and all survey data will be stored in a password secured dropbox where only the principle investigator and her co-investigator have access.

10. Right to Refuse: Subjects may choose not to participate or to withdraw from the study at any time without penalty or loss of any benefit to which they might otherwise be entitled.

11. Privacy: Results of the study may be published, but no names or identifying information will be included in the publication. Subject identity will remain confidential unless disclosure is required by law.

12. Signatures:

The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. For injury or illness, call your physician, or the Student Health Center if you are an LSU student. If I have questions about subjects' rights or other concerns, I can contact Dennis Landin, Institutional Review Board, (225) 578-8692, irb@lsu.edu, www.lsu.edu/irb. I agree to participate in the study described above and acknowledge the investigator's obligation to provide me with a signed copy of this consent form.

Subject Signature: _____ Date: _____

Hello!

My name is Esperanza Garibay, and I am a masters candidate at the Louisiana State University School of Social Work. I am writing to request your participation in my survey that will help complete my master's thesis research.

This survey aims to get an understanding of social worker's attitudes towards deafness and their experience working with the deaf and hard of hearing. Your participation in this research is could one day help improve the quality of access to services for deaf and hard of hearing people.

If you have already participated in this survey, please disregard this invitation, otherwise your participation will be greatly appreciated.

**To participate, please click on the following link:
[survey link]**

Sincerely,

Esperanza J. Garibay

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VITA

Esperanza Garibay is a graduate student in the Master of Social Work program at Louisiana State University. Born to two hearing parents, she grew up in Okinawa, Japan and is fluent in several languages both spoken and signed. She received her undergraduate degree in Psychology at Saint Edward's University in Austin, Texas where her love for American Sign Language and Deaf culture was discovered. Post grad, she hopes to open her own practice that is 100% accessible to Deaf and hard of hearing clients and their families. In her spare time Esperanza enjoys playing music, making soap, watching movies with her family, and playing fetch with her dog, Sunny.